LEGAAT VAN DEN HEER

F. E. BLAAUW

GOOILUST

's-GRAVELAND

1939

bibliotheek

7 7496 00071936 7

.naturalis
netioneal natuurhisto
museum
postbus 95
2300 RA leiden
nederland

TIGER.

NATURAL HISTORY

OF

QUADRUPEDS.

BY

FREDERIC SHOBERL.

WITH ILLUSTRATIONS BY

THOMAS LANDSEER;

THE SUBJECTS ON STEEL ETCHED BY HIMSELF.

PART II.

LONDON:
JOHN HARRIS, ST. PAUL'S CHURCH-YARD.
1834.

LONDON :
PRINTED BY SAMUEL BENTLEY,
Dorset-street, Fleet-street.

CONTENTS

OF

THE SECOND PART.

	Page
MONKEYS—MANDRIL, OR GREAT RIBBED-NOSE BABOON — DOG-FACED BABOON — URSINE BABOON—COMMON MONKEY—SPIDER MONKEY	1
DOGS—MASTIFF OF TIBET AND NEPAUL—SCOTCH DEER-HOUND—GREYHOUND—DOG OF MACKENZIE RIVER—ESQUIMAUX DOG—DOG OF THE GREAT ST. BERNARD	21
WOLF—BLACK WOLF	47
JACKAL	62
HYÆNA	68
WILD CAT	79
SERVAL	82
LION	83
LIONESS	110
TIGER	111

CONTENTS.

	Page
LEOPARD	136
HUNTING LEOPARD	142
LYNX	147
PUMA	149
RACOON	154
BLACK BEAR	158
WHITE BEAR	169
BADGER	180
OPOSSUM	184
ERMINE	188
ICHNEUMON	189
CIVET	193
OTTER	196
BEAVER	202
PORCUPINE	218
MARMOT	222
GRAY SQUIRREL	226
KANGAROO	229
SLOTH	233
ARMADILLO	237
ANT-EATER	240
SEAL	242
BAT	247

MONKEYS.

NATURAL HISTORY

OF

QUADRUPEDS.

MONKEYS.

THE family of monkeys, which forms a very interesting part of the animal creation, embraces a greater number of varieties, and makes nearer approaches to the human species in figure and action, than any other tribe whatever. They are divided into three classes; apes, or such as have no tails; baboons, which have short tails; and monkeys, which in general have long tails. They are natives of the warmest parts of the globe. In the woods

of Africa, from Senegal to Ethiopia and the Cape of Good Hope, they are extremely numerous. They abound also in every part of India and the Asiatic islands, in Japan, in the south of China, and in the forests of South America, from the isthmus of Darien to Rio de la Plata.

In the apes we see the whole external structure impressed with a striking resemblance to the human figure. To this division belongs the ouran outang described in the first part.

The baboon exhibits a less striking similitude to the human form, rarely raising himself to an erect position, unless through the influence of instruction and constraint. These animals have short tails, long faces, and eyes deeply sunk in their sockets; they are in general very ugly, and their disposition is characterised by the most brutal fierceness. Some baboons are nearly equal in stature and superior in strength to man.

The monkeys are much smaller than the former, and more unlike the human species. In a state of nature they never walk erect. They are active, lively, and mischievous, full of frolic and grimace, prying and inquisitive, restless, troublesome, and extremely addicted to thieving.

Having already exhibited in the ouran outang a specimen of the apes, we shall proceed to make the reader acquainted with the baboons by the delineation of one or two species of that division.

The mandril, or great ribbed-nose baboon (the largest figure in the engraved group), is a native of the hottest parts of Africa. It is not less remarkable for its strength and size than for the beauty of its varicgated colours. The nose is marked on each side with broad ribs of a fine violet colour : lincs of vermilion run from above the eyes on cach side of the nose, and meet on the tip. The inside of thc ears is

blue, and the outside red: and the hips are beautifully shaded with gradations from red to blue. The back and legs are dark brown mixed with yellow; the breast and under part of the body white, with small dark spots; the beard dark at the roots, orange at the middle, and yellow at the end. The hair on the forehead is long, and turns back in the form of a crest. The tail is short and hairy; and the hands and feet are black and naked.

An individual of this species of baboon, which belonged to Mr. Cross, and died in the summer of 1832, was about four feet in length, very high in the legs, and had an enormous head. Towards his keepers he was very docile, but he was easily exasperated by strangers: he decidedly preferred cooked to undressed vegetables. When at Windsor, where he was exhibited to his late Majesty, he dined upon hashed venison with an avidity

which seemed to disdain the restraints of vegetable diet altogether.

This animal was provided with a small chair in which he would place himself with great gravity and self-possession; but, according to the account of him given by Mr. Barrow, in his "Characteristic Sketches of Animals," written to accompany the plates from Mr. Landseer's drawings, the most whimsical of his attainments was certainly that of smoking; for, when his keeper handed him a lighted pipe, he would take it from him, put it in his mouth, inhale and exhale the smoke, and look around him with a degree of self-complacency that was most amusing. The fact itself is one requiring such a degree of management and dexterity as to bespeak the possession of instinct of no ordinary character.

The dog-faced baboon, the upper figure on the right, in the engraving, is a native of the

environs of Mocha, and the east coast of the Red Sea; with this exception, we are not acquainted with any species of baboon that is not of African origin. Of its habits and manners we are furnished with no particulars; but they probably resemble those of the ursine baboon of South Africa, which appears to be a variety of this species, and of which we have copious accounts.

The ursine baboon, when full grown, is of the size of a very large Newfoundland dog, and possesses great strength. It resembles the dog in the shape of its head, and is covered with shaggy, brownish hair, except on the face and paws, which are bare and black. On level ground it goes on all fours; but, among rocks and precipices, it uses its hinder feet and hands as a human being would do, only with an inconceivably greater boldness and agility in clambering up the crags and springing from cliff to cliff.

This species of baboon appears to be a harmless and inoffensive animal, living upon fruits and roots, which it digs out of the earth with its paws: but, for defence against its enemies, such as the hyæna, the leopard, and the wild dog, it is armed with formidable canine teeth, and, when driven to extremity, will successfully defend itself against the fiercest wolf-hound. It will grapple its antagonist by the throat with its fore-paws, while it tears open the jugular vein with its tusks. In this manner a stout baboon has been known to dispatch several dogs before he was overpowered; nay, it is even asserted, that the leopard is sometimes defeated and worried to death by a troop of these animals, for it is only in large bands that they can resist this powerful enemy.

The ursine baboons are occasionally troublesome to mankind, by robbing gardens, and corn-fields; but Mr. Pringle, who has

furnished some interesting particulars respecting the habits of these animals, says, that though he resided for some years in a district where they are so numerous that it takes its name from them, he never heard of any person being attacked by them. A remarkable story is indeed told at the Cape of a party of these baboons carrying off an infant from the vicinity of Wynberg, a village about seven miles from Cape Town, and, when an alarm was given by the distracted mother, retreating with it to the summit of the precipitous mountains, three thousand feet high, which overhang that pleasant village. The writer just mentioned was assured by persons of respectability that this occurred within their recollection, and that the child was recovered after a long, anxious, and perilous pursuit, without having sustained any material injury. He conjectures, however, that this singular abduction may have been prompted by the ma-

ternal feeling of some female baboon, bereft of her own offspring, rather than by any ferocious or mischievous propensity.

This conjecture is corroborated by the strong attachment of these animals to their young. "Of this attachment," says Mr. Pringle, "I have frequently witnessed very affecting instances when a band of them happened to be discovered in the orchards or corn-fields. On such occasions, when hunted back to the mountains with dogs and guns, the females, if accidentally separated from their young, would often, careless of their own safety, return to search for them through the very midst of their pursuers. On more peaceful occasions I have often contemplated them with great interest. It is their practice to descend from their rocky fastnesses, in order to enjoy themselves on the banks of the mountain-rivulets, and to feed on the nutritious bulbs which grow in the rich alluvial soil of the valleys.

While thus occupied, they usually take care to be within reach of some steep crag or precipice, to which they may fly for refuge on the appearance of an enemy; and some of their number are always stationed as sentinels on large stones or other elevated situations, in order to give timely warning to the rest of the approach of danger. It has frequently been my lot, when riding through these secluded valleys, to come suddenly, when turning the corner of a rock, upon a troop of forty or fifty baboons, thus quietly congregated. Instantly, on my appearance, a cry of alarm would be raised by the sentinels; and then the whole band would scamper off with the utmost precipitation. Off they would go, hobbling on all fours, after their awkward fashion on level ground; then splashing through the stream, if they had it to cross; then scrambling with most marvellous agility up the rocky cliffs, often many hundred feet

in height, and where certainly no other creature without wings could follow them; the large males bringing up the rear-guard, ready to turn with fury upon my hounds if they attempted to molest them; the females with their young ones in their arms, or clinging to their backs. Thus climbing, and chattering, and squalling, they would ascend the perpendicular crags. I looked on and watched them, interested by the almost human affection which they evinced for their mates and their offspring; and sometimes also not a little amused by the angry vociferation with which the old satyr-like leaders would scold me, when they had got fairly upon the rocks, and felt themselves secure from pursuit."

According to other writers, it is sometimes dangerous for travellers to pass these baboons in the mountains, where they are very numerous. It is asserted that they will sit undismayed on the tops of rocks, and not only

roll but throw from them stones of immense size.

They seldom deseend to the plains, exeept for the purpose of plundering the gardens about the foot of the mountains. While thus employed, they plaee sentinels to prevent any surprise. Breaking the fruit in pieees, they eram it into their eheek-pouehes, in order afterwards to eat it at leisure, when out of danger. The sentinel, if he sees a man, gives a loud yell, whieh he prolongs for about a minute; and the whole troop retreat with the utmost preeipitation, the young jumping upon and clinging to the backs of their parents. When they diseover any single person resting and regaling himself in the fields, they will eunningly steal up behind him, and snateh away whatever they can lay hold of; then, running to a little distanee, they will turn round, seat themselves, and, with the most arch grimaces imaginable, devour their

booty before the face of the man whom they have robbed. They will sometimes hold it out in their paws, as if offering to give it back, and then employ such ludicrous gestures, that, though the poor fellow loses his dinner, he can seldom refrain from laughing.

We are also told, that in the Cape territory they are often taken young and brought up with milk: and Kolben assures us, that they will become as watchful over their master's property as the most valuable house-dog in Europe. Many of the Hottentots believe that they can speak, but will not, lest they should be enslaved and forced to work. Though not naturally carnivorous, they will eat meat or fish that is cooked. They are generally kept fastened by means of a chain to a pole; and their agility in climbing, leaping, and dodging any one that offers to strike them, is almost incredible. Though one of these animals was

thus fastened up, it was found impossible to hit him with a stone at the distance of a few yards. He would either catch it like a ball in his paw, or avoid it with the most surprising agility.

The varieties of the monkey class are very numerous. Every country of the torrid zone swarms with these restless, petulant, and troublesome animals; and every forest is enlivened by their frolicsome gambols. The inhabitants of those regions regard monkeys as one of the greatest pests, for they often do incredible damage to the fields of Indian corn and rice, and are not less destructive to fruit. Their system of pillage resembles that of the baboon, and is conducted with equal sagacity, caution, and dexterity. They are also very troublesome to travellers, pelting them with stones, dirt, and branches of trees. Like all the other species of this tribe, monkeys manifest extraordinary attachment to their young.

Male and female alternately fondle the little cub in their arms, and endeavour to instruct it in their own frolicsome pranks: and if the young one appears disinclined to profit by their example, or refuses to imitate their actions, the parents overcome its obstinacy by well applied chastisement.

The general food of this tribe consists of fruit, buds of trees, or succulent roots and plants: but they will also eat fish if they can get it. In their method of treating the oyster they display remarkable ingenuity. The moment the oyster opens its shells, the crafty creature slips a stone between them to prevent their closing again, and then, with its hand, it takes out the fish.

The figure and tricks of these animals are so well known from the numerous specimens of them to be seen in all our streets, that a detailed description of them would be superfluous. Two individuals of the common spe-

cies are represented on the left in the engraving.

In many parts of India animals of the monkey tribe are objects of worship to the natives, and magnificent temples are appropriated to their accommodation.

M. D'Obsonville, who, during his travels in India appears to have been a close observer of the manners of these animals, says that the tenderness of the females, even in a completely wild state, to their young, is very remarkable. They hold them in proper obedience, and the traveller relates that he has seen them suckle, caress, clean, and pick the vermin from their young, and afterwards, squatting on their hams, watch them with evident delight playing with one another. They would wrestle, throw, and chase each other; and if any of them showed malice in their antics, the dam would spring upon them, and, seizing them by the tail with one paw,

chastise them severely with the other. Some would try to escape, but, when out of danger, they would approach in a wheedling, caressing manner, though always liable to relapse into the same faults: in other cases each would come at the first cry of the dam. If the latter removed to a little distance, the young would slowly follow; but when there was occasion for haste, they always mounted on the backs or clung to the bosom of their mothers.

Monkeys are generally peaceable enough among themselves, but will not suffer intruders of a different species. M. de Maisonpré and several other Europeans witnessed an instance of this antipathy at one of the pagodas of Cheringam. A large strong monkey having stolen in, on the first cry of alarm, a number of males joined to attack the intruder. Aware of his danger, he, though much superior to any of them in size and strength, hastened to the top of a pyramid eleven stories high, fol-

lowed by the others. On reaching the summit of the building, which terminated in a small round dome, he planted himself firmly and, taking advantage of his situation, seized three or four of the boldest of his pursuers and hurled them to the bottom. The rest, intimidated by these proofs of his prowess, after making a great noise, retreated. The conqueror kept his post till evening, and then betook himself to a place of safety.

Their conduct to such of their number as happen to become captives is remarkable. If one is chained in their neighbourhood, they attempt by all possible means to set him at liberty: but, should their efforts prove ineffectual, and he submit to slavery, they will never receive him again among them, should he by any chance escape, but fall upon and beat him away without mercy.

Not content with the abundant supplies which Nature affords in the woods, they sel-

dom fail to steal from houses and gardens whatever they can carry away. When any of them perceives a child with bread or fruit in its hand, they will run up, frighten it, and snatch what it is eating. If a woman is drying grain in the sun, which is a common practice in India, she will sometimes find it difficult to beat them off. Some of them slip round and pretend to steal, and the moment she runs to strike them, the others, watching the opportunity, fall to and seize the corn with the utmost address.

The spider-monkey, the figure of which occupies the lower right hand corner of the engraving, is thus named from the extraordinary length of its extremities, and from its peculiar motions. It is also called the four-fingered monkey, because it has no thumb on its fore paws or hands. It is an inhabitant of the hotter parts of South America, measuring about eighteen inches, and the tail two feet.

This appendage answers all the purposes of a hand; the animal throwing itself about from branch to branch, sometimes swinging by the foot, sometimes by the hand, but oftener and with greater reach by the tail. The prehensile part of this tail is not covered with hair, and forms an organ of touch as discriminating as the hand.

Ulloa tells us that the monkeys of this species, in order to pass from top to top of the lofty trees in their native forests, will form a chain by hanging down linked to each other by the tails, and thus swinging till the lowest catches hold of a bough of the next tree, from which he draws the rest up. By the same expedient also they are said sometimes to cross rivers when the banks are very steep. Stedman relates that one day he saw from his barge one of these monkeys come down to the water's edge, rinse his mouth, and apparently clean his teeth with one of his fingers.

THE DOG.

Among all the species of quadrupeds with which the earth is peopled, none has rendered more important services to man than the dog. One of the first, if not the very first, that he won to be his companion, the dog has assisted him to subdue the more powerful races of domestic animals to his will, and to repress the ravages of the ferocious inhabitants of the forest. He shares his master's dangers, defends his person, and guards his house and his property; in the desolate regions of the north he rivals in utility the stronger horse and reindeer, by conveying him across the boundless wastes of snow; and, under almost all circumstances, he manifests a strength of gratitude and a warmth and constancy of attachment unequalled by any other race of the brute creation.

It seems certain that the shepherd's dog, if not the original stock, is one of the purest races of the domesticated animal. Its pricked ears, rough, long, thick hair, and especially its lounging, wolfish gait, are so many points of resemblance to several of the unreclaimed and perhaps more ancient races; as the dhole or wild dog of India, the dingo of New Holland, the North American and Esquimaux dog, and the African *hyæna venatica* of Mr. Burchell, which last forms the closest imaginable connecting link between the dog and the hyæna. In the process of long domestication in civilized countries, the shepherd's dog becomes more or less divested of these characteristics; the ears become more or less pendulous, the hair short and thick, the figure of the legs more determined, and the pace bolder and more rapid. In England he certainly rises into the mastiff, in France into the mâtin, in Germany into the hound. The in-

fluence of food and elimate does not end here. The hound, transported into Spain or Barbary, assumes, like most of the indigenous quadrupeds of those countries, a coat of long soft hair, and deseends into the land or water spaniel. On the other hand, the grey mâtin, transferred into the north, in a few generations beeomes the great Danish dog; but settled in the south, establishes greyhound breeds of many varieties. But transport the mâtin into Ireland, the Ukraine, Tartary, Epirus, Albania, and he is eonverted into that great wild dog, perhaps the most majestie of the speeies, ealled the Irish wolf-dog, of whieh only two or three individuals are said to be now existing in the British isles. Our limits forbid any attempt to enumerate all the different speeies of dogs, or to describe the eharaeteristie marks by whieh each is distinguished: we must therefore eonfine our remarks to those kinds which the artist has selected for delineation.

The mastiff of Tibet and Nepaul, the larges figure in the engraved group, is an admitte variety of the bull-dog, though its snout i rather longer, its eye deeply sunk, and its uppe jaw projects beyond the lower : but, like our it has thick pendulous lips, although in an ex aggerated form, and the size and power of th foot and paw are common to the two races. I intelligence and fidelity it is said to surpas the British bull-dog, but in courage it is b no means equal to our invincible variety In the garden of the Zoological Society, Re gent's Park, are a dog and bitch from Tibet which were given to that collection by hi late Majesty. They are the first animals o that breed ever seen in England.

The Scotch deer-hound, which occupie the right-hand side of the engraving, is a breed between the greyhound and the blood hound. In hunting the red deer, the first object of the sportsman is to approach so

near to the game as to wound them with their rifles, which, owing to the vigilance of the deer, and the acuteness of their sight, smell, and hearing, it is extremely difficult to do. They are followed by two or three highlanders carrying spare rifles, and leading the deer-hounds. When they have wounded any of the deer, the dogs are let loose upon the track of their blood, and they never leave it till they have brought the animal to bay, most commonly in some stream, where they keep him till the sportsman comes up and shoots him through the head.

The greyhound, represented lying in the middle of the group, is the fleetest of all the varieties of the canine race; but, not possessing the fine scent of other hounds, it can pursue only by the eye, and must be indebted for success to its astonishing speed. Such is the swiftness of the greyhound, that a fleet horse can scarcely keep up with him; and so

great his ardour in the chase as not unfrequently to occasion his death. Buffon conjectures the greyhound to be a variety of the Irish wolf-dog, rendered more delicate by the difference of climate and management; and it must be admitted that, both in form and disposition, it bears a strong resemblance to that animal. In ancient times greyhounds were held in such esteem as to be considered a valuable present from or to princes; and, by the forest-laws of Canute, all persons under the degree of a gentleman were forbidden to keep a dog of that kind.

The remaining figure, on the left of the engraving, is the dog of Mackenzie river. He is found in the northern parts of the American continent, and is a slender, graceful animal, with sharp nose and pricked ears, very much resembling, except in colour, the arctic fox of the same regions, of which indeed he is considered as a variety. The hair, for the

most part white with black patches, is extremely fine and silky, increasing in thickness in winter, and then becoming also more generally white, the black parts assuming a much lighter colour, somewhat of a slaty gray. This speeics of dog is commonly kept by the Hare Indians, becausc, from his light make and the breadth of his foot, he is peculiarly suitable for the pursuit of the moose-dcer over the snow, without sinking, as a heavier dog would do. Three dogs of this species are in the gardens of the Zoological Society.

Nearly akin to the dog of Mackenzie River, are the dogs of the Esquimaux, Laplanders, and Kamtschadales. The Esquimaux dogs are brindled; some black and white, others almost entirely black, and others of a dingy red. They are clothed in a thick furry coat, their hair being in winter three or four inches long. Thcy never bark, but have a long melancholy howl, like the wolf. The Esquimaux,

who inhabit the northernmost parts of America, and the adjacent islands, are dependent on this animal for most of their comforts; for assistance in the chase; for carrying burdens, and for rapid conveyance across their snowy wastes. These animals, which receive from their masters scanty food and abundant chastisement, aid them in hunting the seal, the reindeer, and the bear. In summer one of them will carry a burden of thirty pounds weight, while attending his master; in winter, yoked in numbers to sledges, they will drag several persons at the rate of seven or eight miles an hour, and perform journeys of sixty miles a day.

Captain Parry, in the journal of his second voyage to the arctic seas, has given a picturesque description of the manner in which the Esquimaux dogs are employed in drawing sledges.

"These dogs have a simple harness of deer

or sealskin going round the neck by one bight, and another for each of the forclegs, with a single thong leading over the back and attached to the sledge as a trace. Though they appear at first sight to be huddled together without regard to regularity, there is, in fact, considerable attention paid to their arrangement, particularly in the selection of a dog of peculiar spirit and sagacity, who is allowed by a longer trace to precede the rest as leader, and to whom, in turning to the right or left, the driver usually addresses himself. This choice is made without regard to age or sex, and the rest of the dogs take precedency according to their training or sagacity, the least effective being put nearest to the sledge. The leader is usually from eighteen to twenty feet from the fore part of the sledge, and the hindmost dog about half that distance; so that when ten or twelve are running together, several are nearly abreast of each other. The

driver sits quite low on the forepart of the sledge, with his feet overhanging the snow on one side, and having in his hand a whip, the handle of which, made either of wood, bone, or whalebone, is eighteen inches, and the lash more than as many feet, in length. The part of the thong next the handle is platted to stiffen it and give it a spring, on which much of its use depends. The men acquire from their youth considerable expertness in the use of this whip, the lash of which is left to trail along the ground by the side of the sledge, and with which they can inflict a severe blow on any dog at pleasure. Though the dogs are kept in training entirely by fear of the whip, and indeed, without it would soon have their own way, its immediate effect is always detrimental to the draught of the sledge; for not only does the individual that is struck slacken his pace, but generally turns upon his next neighbour, and this, passing on to the

next, occasions a general divergency, accompanied by the usual yelping and showing of the teeth. The dogs then come together again by degrees, and the draught of the sledge is accelerated: but, even at the best of times, by this rude mode of draught, the traces of one third of the dogs form an angle of thirty or forty degrees on each side of the direction in which the sledge is advancing. Another great inconvenience of the Esquimaux method of putting the dogs to, besides that of not employing their strength to the best advantage is the constant entanglement of the traces by the dogs repeatedly doubling under from side to side to avoid the whip; so that after running a few miles, the traces always require to be taken off and cleaned.

"In directing the sledge, the whips act no very essential part, the driver for this purpose using certain words, as the carters do with us, to make the dogs turn more to the

right or left. To these a good leader attends with admirable precision, especially if his own name be repeated at the same time, looking behind over his shoulder with great earnestness, as if listening to the directions of the driver. On a beaten track, or even where a single foot or sledge-mark is occasionally discernible, there is not the slightest trouble in guiding the dogs: for, even on the darkest night, and in the heaviest snow-drift, there is little or no danger of their losing the road, the leader keeping his nose near the ground, and directing the rest with wonderful sagacity. Where, however, there is no beaten track, the best driver among them makes a terribly circuitous course, as all the Esquimaux roads plainly show; these generally occupying an extent of six miles, when, with a horse and sledge, the journey would scarcely have amounted to five. On rough ground, as among hummocks of ice, the sledge would be

frequently overturned, or altogether stopped, if the driver did not repeatedly get off, and, by lifting or drawing it to one side, steer clear of these accidents. At all times, indeed, except on a smooth and well-made road, he is pretty constantly employed thus with his feet, which, together with his never-ceasing vociferations and frequent use of the whip, renders the driving of one of these vehicles by no means a pleasant or easy task. When the driver wishes to stop the sledge, he calls out 'Wo, woa!' exactly as our carters do, but the attention to this command depends altogether on his ability to enforce it. If the weight is small, and the journey homeward, the dogs are not to be delayed: the driver is, therefore, obliged to dig his heels into the snow to obstruct their progress, and, having thus succeeded in stopping them, he stands up, with one leg before the foremost cross-piece of the sledge, till, by means of laying his whip gently

over each dog's head, he has made them all lie down.

"With heavy loads, the dogs draw best with one of their own people, especially a woman, walking a little way ahead: and in this case they are sometimes enticed to mend their pace by holding a mitten to the mouth and then making the motion of cutting it with a knife, and throwing it on the snow, when the dogs, mistaking it for meat, hasten forward to pick it up. The women also entice them from the huts in a similar manner. The rate at which they travel depends of course on the weight they have to draw, and the road on which the journey is performed. When the latter is level and very hard and smooth, six or seven dogs will draw from eight to ten hundred weight, at the rate of seven or eight miles an hour; and will easily, under these circumstances, perform a journey of fifty or sixty miles a day. On untrodden snow, twenty-

five or thirty would be a good day's journey. The same number of well-fed dogs, with a weight of only five or six hundred pounds, that of the sledge included, are almost unmanageable, and will on a smooth road run any way they please, at the rate of ten miles an hour. The work performed by a greater number of dogs is, however, by no means in proportion to this, owing to the imperfect mode already described of employing the strength of these sturdy creatures, and to the more frequent snarling and fighting occasioned by an increase of numbers."

The people of Kamtschatka derive nearly the same benefits from their dogs, and employ them in travelling in the same manner as the Esquimaux. Horses are not more useful to Europeans than these dogs to the inhabitants of the cheerless regions of the north. In the most severe storm, when their master cannot keep his eyes open or see the path, they very seldom miss their way; and if they do, they

go from one side to the other till by thei smell they regain it. When, as it often hap pens during a long journey, it is found impos sible to proceed, the dogs, lying round thei master, will keep him warm and defend hi from danger. They also foretell an approach ing storm by stopping and scraping the sno with their feet: in which case it is always ad visable to look out immediately for some vil lage or place of shelter. The manner in whic these dogs are treated is not best calculated t secure their attachment. In winter they ar scantily fed upon putrid fish, and in summe they are turned loose to shift for themselve till the return of the cold season renders i necessary that they should be again collected and reduced once more to their state of labo rious servitude.

In the same manner the dogs of Newfound land, one of the most active and sagacio varieties, are employed in their native islan

to draw sledges and carts laden with wood and fish, and to render many other useful services performed elsewhere by the horse. The people of the Netherlands, too, have been long accustomed to use dogs for the purposes of draught; and the reader has doubtless observed that in London the practice of harnessing them to light vehicles, trucks, baker's wheelbarrows, the small carts of itinerant venders of cats' meat, and the like, has become very general; and though their strength is not often employed in combination, as in the case of the Kamtschadale and Esquimaux sledge-dogs, still their energy enables them to move considerable weights.

If men have debased themselves by making these animals the instruments of their barbarity, as in the use of blood-hounds by the Spaniards to exterminate the unoffending Indians of America, another variety of these sagacious quadrupeds has displayed a truly affecting so-

licitude, courage, and ingenuity, in the pre servation of human life. These wonderfu dogs, which have been trained to their bene ficent occupation by the monks of the convei situated near the top of the mountain calle the Great St. Bernard, not far from one of th most dangerous passes between Switzerlan and Savoy, belong, strictly speaking, to th subdivision of spaniels, which embraces als the shepherd's dog, the Esquimaux, and th other varieties most distinguished for intelli gence and fidelity.

In that dreary region the traveller is liabl to be surprised by sudden snow-storms, or by avalanches, which are loosened masses of snow and ice that fall from the crests of the moun tains, and bury every thing in their course. The benevolent monks, with their dogs, are in cessantly in search of sufferers by such acci dents of Nature. Though the perishing man benumbed with cold, and his senses yielding

to its stupifying influence, may be covered to the depth of many feet by the snow, still the delicate scent of the animals enables them to discover the spot where he is entombed. They scratch away the snow with their feet, and by their barking call the monks and the labourers of the convent to their assistance. With a provident care to afford every chance of escape to the unfortunate travellers, the good fathers fasten a flask of spirits about the neck of one of the dogs and a cloak on the back of another. So successful have been the efforts of these noble animals in the cause of humanity, that one of them was decorated with a medal in commemoration of his having saved the lives of twenty-two persons, who must otherwise have perished. He was himself overwhelmed, in 1816, by an avalanche, together with two guides, while conducting a Piedmontese courier, in a very stormy season, to the little village of St. Pierre, at the foot of

the mountain. A well-known print represents another of these dogs, which, having found a boy whose mother had been destroyed by an avalanche, unhurt, asleep in the hollow of a glacier, and almost stiff with cold, delivered to him the bottle suspended from his neck, and, when he had refreshed himself, found means to induce him to mount upon his back, and thus carried him to the gate of the convent. This dog, whose name was Barry, possessed an instinct so astonishing for this humane employment, and a zeal and perseverance so indefatigable, that he had been the means of rescuing from death upwards of forty persons. Having exhausted his strength in his philanthropic vocation, the prior of the convent sent him to Berne, there to pass the remainder of his days in repose. After his death his skin was stuffed, and it is now exhibited to the curious in the museum of Berne, with the bottle and collar which he bore in his lifetime.

The domestic dog is scientifically distinguished from the other varieties of the genus *canis*, which includes the fox, the wolf, the jackal, and the hyæna, by having its tail curved upwards; and it is worthy of remark that, whenever any part of the tail of the domestic dog is white, the tip also is of that colour.

This valuable quadruped is unfortunately liable to a terrible disease, called hydrophobia, or canine madness, which he communicates by his bite to man and other animals. Human ingenuity has not yet discovered either a preventive or antidote for this dreadful malady: the only expedient that has hitherto proved successful being to cut or burn out the bitten part.

In some parts of Africa, in China, and in the South Sea Islands, dogs are bred and slaughtered for the sake of their flesh; and in Finmark and Lapland for their hides.

A large volume might be filled with anecdotes illustrative of the docility, sagacity, intelligence, courage, fidelity, and attachment of the dog; we are obliged to confine ourselves to the selection of one or two for the amusement of the reader.

The author of 'The Menageries' relates that in 1818 a gentleman from London took possession of a house at Horton, in Buckinghamshire, the former tenant of which had removed to a farm about a mile distant. The new comer brought with him a fine French poodle, to do the duty of watchman in place of a fine Newfoundland dog, which went away with his master: but a puppy of the same breed was left behind, and was incessantly persecuted by the poodle. As the puppy grew up, the persecution still continued. One day he was missing for some hours; at length he returned, bringing with him his old friend, the large dog, when both instantly fell on the

unfortunate poodle, and killed him before he could be rescued from their fury. In this case, observes the narrator, the injuries of the young dog must have been made known to his old companion, a plan of revenge concerted, and that plan formed and executed with equal promptitude.

An officer of the 44th regiment, who had occasion, when in Paris, to pass one of the bridges across the Seine, had his boots, which had been previously well polished, covered with dirt by a poodle-dog rubbing against them. He went in consequence to a shoe-black stationed on the bridge, and had them cleaned. The same circumstance having occurred more than once, his curiosity was excited, and he observed the dog. He saw him roll himself in the mud of the river, and then watch for a person in well-polished boots, against which he contrived to rub himself. Finding that the shoe-black was the owner of

the dog, he taxed him with the artifice; and after a little hesitation he confessed that he had taught the dog the trick in order to procure customers. The officer, being much struck with the sagacity of the dog, purchased him at a high price, and brought him to England. Having kept him for some time tied up in London, he then released him. The animal remained with him for a day or two, and then made his escape. A fortnight afterwards he was found with his old master on the bridge, pursuing his former vocation.

In the month of December, 1782, a surgeon residing on the border of Cheshire was summoned to give professional attendance at Heaton, near Manchester, and set out late on a frosty, star-light night, on foot and unattended, to return home. On passing a warehouse, opposite to the New Cross in Manchester, a large buff-coloured mastiff came snuffing about his legs. Supposing the dog to be the guar-

dian of the warehouse, he was at first somewhat alarmed ; but speaking in soothing terms to conciliate the animal, he proceeded slowly, and was surprised to find that the dog followed close at his heels. He desired him in a commanding manner to be gone, and even used severe threats to make him leave him, but to no purpose. As, however, the animal showed no resentment, the surgeon determined not to interfere with him any more, and the dog still continued to follow him. In his further progress he was passed by two men ; presently two others crept from under the railing by the road-side in his rear. Having thus surrounded, they soon closed upon him, ordered him to stop, and attempted to collar him. He told them that if they gave him any interruption he would set his dog at them ; and, as two of the ruffians, not intimidated by this threat, advanced to lay hold of him, he called to the dog to

seize them. The animal, immediately leaping at the throat of the foremost, threw him to the ground; and in falling he knocked down his companion. Availing himself of this opportunity, the surgeon ran for some distance, till overtaken by his unknown protector, out of breath with the contest. A little further on he experienced another slight interruption from a man carrying on his shoulder what the traveller took to be a gun, and who called to him to proceed no further. The surgeon replied that if he advanced a step nearer to him his dog should tear him in pieces, as he had served two villains just before. This menace had the desired effect, and he reached home without further molestation. Here he minutely examined his new friend, gave him a plentiful repast, took him to the stable to rest till morning, and left particular directions for the servant not to let him escape. This caution, however, was not communicated to the

Black Wolf.

Hyena

Jackall

woman, who opened the stable-door as usual, when the dog rushed out, leaped over the yard gate, and was never seen afterwards; nor could it ever be traeed to whom he belongcd, whenee he came, or whither he wcnt.

THE WOLF.

THE features of the wolf have a general resemblanee to those of the large shepherd's dog, with a head, however, whieh approaehes more elosely to that of the dingo, or dog of New Holland. From the nose to the insertion of the tail the wolf measurcs about three feet and a half in length, and two and a half in height. In Europe his eolour is a mixed blaek, brown, and gray; in Africa ash-coloured and yellowish red; in America, entirely black in summer and white in winter, or of a reddish hue. In all the speeies the eolour of the eye-

balls is a glowing green, and the eyes are s
set as to open slanting and upwards, in a lin
parallel to the direction of the nose. Th
general aspect of his gaunt, long body, clothe
with strong, rough hair, and mounted on hig
muscular legs, is fierce and ravenous; and hi
insidious motion and deceptive pace, whic
appear to be slow and lazy, while he is actu
ally advancing very rapidly upon his object
betray the craftiness and cruelty of his dispo
sition. He is described, when not in quest o
prey, as being generally dull and cowardly
but when under the influence of hunger, lik
other carnivorous quadrupeds, he manifest
extraordinary boldness and activity. He at
tacks the fold of the shepherd and the stabl
of the farmer: in pursuit of sheep, horses, an
other cattle, he defies the protection of man
himself, and turns upon and overcomes the
very dogs by which he has been hunted the
day before. The female is remarkable for the

affectionate solicitude with which she brings up her young, and the desperate courage with which she will defend them.

The wolf is spread over almost the whole of the new as well as the old world, and especially abounds in the polar regions, braving the rigour of everlasting winter with as much energy and vivacity as he manifests beneath the milder skies of Europe, or in the burning regions of Africa.

In the northern countries of civilized Europe wolves are very ferocious, visiting particular districts sometimes in prodigious flocks, and committing the most terrible depredations. Thus, in 1821, the inhabitants of the town of Gefle, in Sweden, were annoyed by the continual incursions of wolves from the remoter parts of the province of Gestrickland, which destroyed numbers of children, and carried off and devoured a girl nineteen years of age.

These animals are subject to that dreadful canine malady, the hydrophobia; a melancholy proof of which occurred in the same year, 1821, in a small village in the department of the Upper Pyrenees, in France, when two men, who had been bitten by a wolf in this rabid state, died of the disease.

The British islands are almost the only portion of Europe in which the wolf has been exterminated; though under the Saxon monarchs he was very common in them. In the reign of Athelstan wolves abounded in Yorkshire to such a degree that, at Flixton, near Scarborough, a place of retreat was built for the protection of travellers against their attacks. King Edgar remitted the punishment of certain crimes on the production of a specified number of wolves' tongues; and instead of the annual tribute payable by Wales, he exacted three hundred wolves' heads. Notwithstanding these efforts to extirpate the

race, these animals had so much increased in number in the reign of Edward I. that this monarch issued a mandate to Peter Corbet to assist in their destruction: and in the county of Derby certain persons held their lands by the suit of hunting and destroying the wolves which infested the country; whence this tenure was called wolve-hunt. In Scotland, the last wolf was killed in the latter end of the 17th century by Sir Ewen Cameron; and in Ireland the race was not entirely extirpated till about the year 1710.

The black wolf is found in the United States of America, and has been described under the name of Canis nubilus, or Clouded Wolf. The menagerie in the Tower of London contains a pair of wolves, the hair of which is of that mottled or clouded colour from which the variety has been thus named. It is larger and stronger than the common wolf; and, though of fierce aspect, it has not

that sinister look of apprehension united with ferocity by which the wolf species in general is characterised. The tail of the American wolf is shorter, the head larger, the muzzle rounder, than that of the European: his expression has less of that character which we call sneaking, but he is equally voracious.

Of the habits of the wolves of America, where there are several varieties, we have been furnished with interesting particulars by recent travellers. In the perilous journey of Captain Franklin to the Polar Sea, he and his companions were often obliged to contend for their scanty fare with the prowling wolves of those inclement regions. On one occasion, when they had killed a moose-deer, and buried part of the body, the wolves absolutely dug it out from under their feet and devoured it while the weary men were asleep. At another time, when the travellers had killed a deer, they saw by the light of the aurora

borealis eight wolves waiting around for their share of the prey; and the hideous howling of the ferocious animals, and the cracking of the surrounding ice, would have prevented sleep, had they even dared to yield to it. Sometimes, however, they assisted the hungry travellers in the discovery of food; for whenever they perceived a group of wolves and a flight of crows, they knew that a prize was at hand, and sometimes came in for a share of it, if the animal had been recently killed.

The very wolves of these desolate regions, though beyond the annoyance of man, appear to have an instinctive fear of him; for they would fly before the little band, without attempting any resistance, and even shun the encounter with a single individual. Thus we are informed in Captain Franklin's work that, one evening, when the weather was sultry, "Dr. Richardson, having the first watch, had gone to the summit of the hill, and remained

seated, contemplating the river that washed the precipice under his feet, long after dusk had hid distant objects from his view. His thoughts were perhaps far distant from the surrounding scenery, when he was roused by an indistinct noise behind him; and, on looking round, perceived that nine white wolves had ranged themselves in the form of a crescent, [the mode generally adopted by a pack of wolves to prevent the escape of any animal which they pursue,] and were advancing, apparently with the intention of driving him into the river. On his rising up, they halted; and when he advanced, they made way for his passage down to the tents."

The extreme cunning of the wolves, when in pursuit of a creature of superior speed, is shown in the following passage from the same interesting work: "So much snow had fallen, that the track we intended to follow was completely covered, and our march was very fa-

tiguing. We passed the remains of two red deer, lying at the basis of perpendicular cliffs, from the summits of which they had probably been forced by the wolves. These voracious animals, who are inferior in speed to the moose or red deer, are said frequently to have recourse to this expedient in places where extensive plains are bounded by precipitous cliffs. While the deer are quietly grazing, the wolves assemble in great numbers, and, forming a crescent, creep slowly towards the herd, so as not to alarm them much at first; but when they perceive that they have fairly hemmed in the unsuspecting creatures, and cut off their retreat across the plain, they move more quickly, and, with hideous yells, terrify their prey, and urge them to flight by the only open way, which is towards the precipice; appearing to know that, when the herd is once at full speed, it is easily driven over the cliff, the rearmost urging on those

that are before. The wolves then descend at leisure and feast on the mangled carcases."

The wolves of the arctic regions bear so strong a resemblance to the dogs of the Esquimaux, that, notwithstanding their mutual antipathy, the latter are regarded by some naturalists as a race of domesticated wolves. Captain Parry, in the Journal of his Second Voyage, relates, that "a flock of thirteen wolves, the first yet seen, crossed the ice in the bay from the direction of the huts, and passed near the ships. These animals had accompanied, or closely followed the Esquimaux on their journey to the island the preceding day; and they proved to us the most troublesome part of their suite. They so much resemble the Esquimaux dogs, that, had it not been for some doubt among the officers who had seen them, whether they were so or not, and the consequent fear of doing these poor people an irreparable injury, we might have killed most

of them the same evening, for they came boldly to look for food within a few yards of the Fury, and remained there for some time." We are told, in the same journal, that a few days afterwards, "these animals were so hungry and fearless, as to take away some of the Esquimaux dogs in a snow-house, near the Hecla's stern, though the men were at the time within a few yards of them." The same traveller further mentions, that a Newfoundland dog, belonging to one of the ships, having been entieed to play by some wolves which were prowling about the vessels, would have been carried off by them, had not the seamen gone in a body to his reseue.

In De Broke's work we find also some remarkable particulars illustrative of the animosity existing between the dog and the wolf. "I observed," says he, "in setting out from Sormjöle, that the peasant who drove my sledge was armed with a cutlass; and, on

inquiring the reason, was told that, the day preceding, while he was passing in his sledge the part of the forest we were then in, he had encountered a wolf, which was so daring that it actually sprang over the hinder part of the sledge, and attempted to carry off a small dog which was sitting behind him. During my journey from Tornea to Stockholm, I heard every where of the ravages committed by wolves, not upon the human species or the cattle, but chiefly upon the peasants' dogs; considerable numbers of which had been devoured. I was told that these were the favourite prey of this animal; and that in order to seize upon them with the greater ease, it puts itself into a crouching posture, and begins to play several antic tricks, to attract the attention of the poor dog, which, caught by these seeming demonstrations of friendship, and fancying it to be one of his own species, from the similarity, advances towards it to

join in the gambols, and is carried off by its treacherous enemy. Several peasants that I conversed with mentioned their having been eye-witnesses of this circumstance."

Notwithstanding the savage ferocity of the wolf, a few instances of his having been tamed are on record. Buffon brought up one, which remained very quiet and docile till about eighteen months old, when he broke his fetters and ran off, after killing a number of fowls and a dog, with which he had lived in the greatest familiarity. Sir Ashton Lever also had a tame wolf, which, by proper education, was entirely divested of the natural ferocity of his species. M. de Candolle, the celebrated naturalist of Geneva, in one of his lectures on the subject of the changes which take place in animals when under the dominion of man, related that a lady residing near Geneva had a tame wolf, which appeared to be as strongly attached to his mistress as a

spaniel. She had occasion to leave home fo
some weeks; the wolf manifested the greates
distress after her departure, and at first re
fused to take food. He was much dejecte
during the whole time of her absence; and
on her return, as soon as the animal heard he
footsteps, he bounded into the room in a
ecstasy of delight; and, springing up, place
a paw on each of her shoulders, but the nex
moment fell back and instantly expired.

Mons. F. Cuvier has also recorded a ver
remarkable instance of the affection of a tam
wolf for his master. He was brought up i
the same manner as a puppy, and remaine
till full grown with his original owner, who
being obliged to go abroad, presented him t
the menagerie at Paris. For many week
after this separation he was quite disco
solate; scarcely taking any food, and bein
indifferent to his keepers; at length he bega
to manifest attachment to those about hi

and seemed to have forgotten his old affections. After an absence of eighteen months his master returned: the wolf heard his voice in the gardens of the menagerie, and on being set at liberty displayed the most vehement joy. Again separated from his friend, his grief was as intense as on the former occasion. His master again returned after an absence of three years. It was evening: the den of the wolf was concealed from view, yet no sooner did he hear the voice of the man, than he set up the most anxious cries. When the door was opened, he rushed towards his friend, leaped upon his shoulders, licked his face, and threatened to bite his keepers when they attempted to separate them. When the man left him he fell sick, and refused his food; and, after his recovery, which was long very doubtful, it was always dangerous for a stranger to approach him: he appeared to scorn the formation of new friendships.

The wolf is valuable for his skin alone, which makes a warm and durable fur. Mackenzie informs us, that in one year (1798) the Canada Fur Company exported to England three thousand eight hundred wolf-skins.

THE JACKAL.

THERE is no essential difference between the jackal and the dog. The average length of three individuals belonging to the Zoological Society, is about two feet, and they are about one foot in height at the most elevated part of the back. The tail, bushy, as in the fox, is about seven inches in length. The head, neck, thighs, and outer part of the limbs and ears, are of a dirty yellow; under the neck and body, and the inner surface of the limbs, somewhat white; while the back and the sides of the body to the

tail are of a gray yellow, which is abruptly divided from the surrounding lighter colours. The long hairs of the tail have black tips, so that the extremity of the tail itself appears black. The eyes are small, the pupils round as in the dog; the eye-balls, muzzle, and nails black.

The jackal, of the species called the Asiatic, abounds all over the continent of Africa and the countries of Southern Asia, where he renders the same kind of service as the vulture and the hyæna, in devouring every species of animal substance, the effluvia of which would otherwise taint the air, and possibly engender disease and pestilence. Prowling about by night in troops, the jackals will enter towns and villages, ravaging poultry-yards and gardens, and even destroying children, if they are left unprotected. Penetrating into stables, and outhouses, they consume every article made of leather; and, familiarly entering the tent of

the sleeping traveller, they will carry off whatever they can find. For want of living prey they will devour the most putrid carcases, and even disinter the dead, when the grave is not made of sufficient depth. When they cannot obtain animal food, they subsist on fruits and nuts, burrowing in the earth, where they lie all day, and sallying forth at night in quest of prey. They are gregarious, assembling in packs of forty, fifty, and even two hundred; hunting by the nose, for they have a very quick scent, like hounds in full cry; from evening till morning filling the air with the most horrid howlings. When they commence their chase, the lion, panther, and other large beasts of prey, whose ears are dull, rouse themselves to action, and follow the jackals in silence, till they have hunted down their prey, when they come up and devour the fruits of their labour. Hence the jackal from an erroneous idea that he is in confe-

deracy with the lion for the pursuit of their mutual prey, has been popularly called "the lion's provider."

The nocturnal cry of the jackal is described as more terrific than the howl of the hyæna, or the roar of the tiger. Captain Beechey, in the account of his expedition to explore the north coast of Africa, says:—"The cry of the jackal has something in it rather appalling, when heard for the first time at night; and, as they usually come in packs, the first shriek which is uttered is always the signal for a general chorus. We hardly know a sound which partakes less of harmony; and indeed the sudden burst of the long protracted scream, succeeding immediately to the opening note, is scarcely less impressive than the roll of the thunder-clap immediately after a flash of lightning. The effect of this music is very much increased when the first note is heard in the distance—a circumstance which

often occurs—and the answering yell burst out from several points at once, within a few yards, or feet, of the place where the auditors are sleeping."

The Barbary jackal, about the size of a fox and of a brownish fawn colour, has a bushy tail. He is found in Egypt, never in flocks like the common jackal, but always singly. In his habits he much resembles the fox, stealing abroad, often in the open day, and carrying off poultry and eggs. In the hunting of wild birds also he exhibits extraordinary craft and agility. His cunning is strikingly depicted in the following narrative by Sonnini: —"One day as I was meditating in a garden, I stopped near a hedge. A jackal, hearing no noise, was coming through the hedge towards me, and when he had cleared it, he was just at my feet. On perceiving me he was so surprised that he remained motionless for some seconds, without even attempting to

escape. His eyes were fixed steadily on me; and perplexity was painted in his countenance in a manner of which I could not have supposed it susceptible, and which denoted great delicacy of instinct. On my part, I was afraid to move lest I should put an end to this situation, which afforded me much pleasure. At length, after he had taken a few steps, first to one side, then to the other, as if too much confused to know which way to get off, and keeping his eyes still upon me, he retired, not running, but creeping with a slow step, setting down his feet one after another with singular caution. He seemed so much afraid of making a noise in his flight, that he held up his large tail almost in a horizontal line, that it might neither drag on the ground nor brush against the plants. On the other side of the hedge I found the fragments of his meal, which had consisted of a bird of prey, great part of which he had devoured."

The third speeies, eommonly called the Cape jaekal, from its inhabiting the territory of the Cape of Good Hope, like the preeeding, resembles a fox, and is characterised by a triangular mark of blackish gray upon the baek, broad at the shoulders, and terminating in a point at the origin of the tail.

THE HYÆNA.

Of the two varieties of the hyæna, the striped and the spotted, which are spread over the greater portion of Africa and the southern half of Asia, the former is best known to Europeans: it is found both solitary and in numerous troops in Moroceo and the forests of western Afriea, in Syria and throughout India. The spotted hyæna roves in prodigious numbers through Abyssinia, the territories of the Cape, and the surrounding countries.

The figure of the hyæna is gaunt and uncouth: his head is rather large, his back much arched, his loins spare, and, as compared with the depth of his withers and his short, thick, and bony neck, apparently weak. His eye is large, round, and extremely restless, and characterised by an expression of mingled cunning and cruelty, cowardice and sagacity, which is not less wonderful than formidable. The forelegs present a curious deformity, being almost as graceless as those of a turnspit dog. The upper and lower limb are at different angles to the body, and not very unlike in this respect those of the cayman, or South American alligator.

This animal is generally about the size of a large dog, being about two feet in height, and upwards of three feet in length from the muzzle to the tail, though it is sometimes found of twice that length. The usual colour of the striped variety is a pale grayish brown,

with a tawny cast; and the whole body is marked with blackish transverse bands, running from the back downward, those on the legs being most numerous and of the deepest colour. The spotted hyæna is very similar in general shape to the striped, but commonly smaller. The colour of the hide is a dirty yellow, approaching to a blackish brown on the belly and limbs, with spots also of a blackish brown, more or less deep, on all parts of the body excepting the under part of the belly and breast, the inner surface of the limbs, and the head: the extremity of the muzzle is black, and the tail brown, without spots.

Dwelling in the same climates as the jackal, the hyæna makes his abode, like that animal, in rocky caves and subterraneous dens, pursues his prey by night with hideous yells, and, when rendered desperate by hunger will fearlessly face man himself. Like the jaekal, too,

he seems to take a strange pleasure in searching for water among the ruins of those ancient cities which are scattered over the remoter plains and deserts of the countries in which he has fixed his inauspicious abode. The presence of these fierce beasts of prey amidst classic ruins seems to be the very bitterness of desolation: their howlings form the most dreadful dirge over the proudest dust of human grandeur.

The hyæna is not more ready to attack mankind than most of the larger and more ferocious quadrupeds: but, when impelled by hunger, he invades the precincts of the village or camp in quest of horses, camels, asses, or even poultry, he shows a disposition for offensive as well as defensive warfare. At such times it is dangerous to attack him, as he will turn upon his pursuer with desperate obstinacy. Owing to the prodigious strength of his jaws, and their peculiar articulation, his bite is most

terrible. His teeth grind bone, cartilage, and flesh, with almost equal facility, and his appetite is immoderately voracious.

If the hyæna is an annoyance and a scourge in the countries where he dwells, his presence is nevertheless beneficial, inasmuch as he is one of those animals appointed by Providence to act the part of scavengers in the tropical regions, by devouring the carcases which might otherwise generate infectious diseases. For this purpose he is endowed with the faculty of acute smell, which conducts him to his food. Thus in the very hour when any quadruped falls, the sharp-scented hyænas immediately make their appearance, and rush into the encampments of man for their share of the prey. At Cape Town they formerly came down into the streets unmolested by the inhabitants to clear the shambles of their refuse. Sparrman relates an amusing story of their boldness, for the truth of which, how-

ever, he does not altogether voueh. One night, at a earouse near the Cape, a trumpeter who had taken too much liquor was earried out of doors in order to eool and sober him. A tiger wolf (as the spotted hyæna was ealled by the Duteh), attraeted by the seent, seized and threw him on his baek, and bore him off like a eorpse, and consequently a good prize, towards Table Mountain. The drunken musician meanwhile awoke, sufficiently sensible to be aware of the danger of his situation. With his trumpet, which was fastened to his side, he sounded the alarm, and the beast, terrified in his turn, dropped his prey and scampered off. Any person but a trumpeter would doubtless have furnished the marauder with a supper.

It is eertain that there are oeeasions when the hyæna, rendered bold by extreme hunger, will earry off very large animals, and assault human habitations, and even towns, with the

most daring ferocity. Major Denham relates that in Bournou, in the month of August, when the great lake overflows, the water drives the wild beasts from their haunts in the jungles, and forces them to take refuge in the standing corn and sometimes in the immediate neighbourhood of the towns. Owing as much to this cause as to the heavy falls of rain, people are afraid to venture out of their habitations. "The hyænas," he continues, "which are everywhere in legions, now grew so extremely ravenous, that a good large village, where I sometimes procured a draught of sour milk in my duck-shooting excursions, had been attacked the night before my last visit, the town absolutely carried by storm, notwithstanding defences of the prickly tulloh, nearly six feet high, and two donkeys, whose flesh these animals are particularly fond of, carried off, in spite of the efforts of the people. We constantly heard them close to the walls of our town at

night; and on a gate being left partly open, they would enter and carry off any unfortunate animal that they could find in the streets."

Bruce assures us that, during his residence in Abyssinia, the hyænas were a plague in every situation, both in the city and in the field, and that they surpassed even the sheep in number. "Gondar was full of them," says he, "from the time it became dark till the dawn of day, seeking the different pieces of slaughtered carcases which this cruel and unclean people expose in the streets without burial, and who firmly believe that these animals are *falasha* [that is, men transformed by magic into beasts] from the neighbouring mountains, come to eat human flesh in the dark in safety. Many a time at night, when the king had kept me late in the palace, and it was not my duty to lie there, in going across the square from the king's house, not many hundred yards distant, I have been apprehensive lest

they should bite me in the leg. They grunted in great numbers about me, although I was surrounded with several armed men, who seldom passed the night without wounding or slaughtering some of them.

It would appear from facts related by Bruce that the hyæna of Barbary is far less fierce than that of the central regions of Africa. He assures us that in Barbary he has seen the Moors in the day-time take this animal by the ears, and haul him along without his offering any other resistance than drawing back; and the hunters will take a torch in their hands, enter a cave, and, pretending to fascinate him by a senseless jargon, throw a blanket over him and drag him out. By way of experiment, the traveller himself once locked up a goat, a kid, and a lamb all day with a Barbary hyæna when fasting; and he found them in the evening alive and unhurt; but on a repetition of the experiment, he ate up a

young ass, a goat, and a fox before morning, leaving nothing but a few fragments of the bones of the ass.

The opinion maintained, not only by the keepers of wild beasts, but also by writers on natural history, that the hyæna cannot be tamed, is disproved by experience. It is true that in captivity this animal displays a fierce and untractable disposition, and is very impatient of confinement. Pennant and Buffon make mention of hyænas which had been rendered as tame as dogs; and Barrow, in his "Travels in Southern Africa," says: "The cadaverous *crocuta* [the spotted hyæna] has lately been domesticated in the Snewberg, where it is now considered one of the best hunters after game, and as faithful and diligent as any of the common sorts of domestic dogs." Mons. F. Cuvier also relates that a young animal of this species, taken at the Cape, had been tamed without difficulty. His keepers had complete com-

mand over his affeetions; but his rage was very great occasionally when strangers approached him. Bishop Heber saw an hyæna in India belonging to a gentleman who had kept him for several years, and whom he followed about like a dog, fawning on persons with whom he was acquainted, and the good bishop mentions this as an instanee "how much the poor hyæna is wronged when he is deseribed as untameable." The author of 'The Menageries,' adduces the further example of an individual kept some years ago at Exeter Change, whieh was so tame as to be allowed to walk about the exhibition-room, and was afterwards sold to a person who took him out into the fields merely eonfined by a string. Being purehased by a travelling showman, who kept him eonstantly in a eage, his ferocity from that time beeame quite alarming; he would not suffer any stranger to approach him, and gradually pined away till he died.

Wild Cats

Serval

London Pub.d as the Act directs by J. Harris, S.t Pauls Church Y.d Dec.r 1833

THE WILD CAT.

The wild cat, from which all the domestic varieties have proceeded, is a native of Europe and Asia, and is still to be found in some of the more woody and unfrequented parts of the British islands. It has a larger head and stronger limbs than the domestic cat, and its colour is a pale yellowish gray, with dusky stripes, those on the back running lengthwise, and those on the sides transversely, and in a curved direction.

This animal is twice or three times as large as the house cat, and proportionably strong and formidable. We are assured, that a wild cat, killed in Cumberland, measured five feet from the nose to the end of the tail. It is the fiercest and most destructive beast of prey that we have in Britain; living mostly in

trees, and prowling about a night in quest of birds and small animals. Sometimes it will sally from its usual retreats, and make great havoc among poultry; and it will also kill young lambs, kids, and fawns, and is exceedingly destructive in rabbit-warrens.

Wild cats are taken in traps, or by shooting. In the latter case it is dangerous to approach them, if only wounded; for they will attack their pursuer, and have such strength as to be formidable enemies. A tradition is extant, of a severe conflict between a man and a wild cat, at the village of Barnborough in Yorkshire. It is said that the fight commenced in a neighbouring wood, and was continued thence to the porch of the church, where it terminated fatally for both combatants, who died of their wounds. A rude painting in the church commemorates the event; and, as some of the stones have a natural red tinge, it has been asserted that

these are stains produced by the blood of the combatants, which the application of soap and water has not been able to efface.

Wild cats were formerly reckoned among the beasts of chase; as it appears from a charter granted by Richard II. to the abbot of Peterborough, giving him privilege of hunting the hare, the fox, and the wild cat; and at a much earlier period it was an object of the sportsman's diversion.

Wild cats are found in almost every country of the old and new world, and existed in America before its discovery by Europeans. The Persian province of Khorasan is celebrated for a beautiful variety of this animal. Its size is about the same as that of our common cat; its colour is a fine gray, and for softness and lustre, its skin cannot be surpassed. The tail, which is long, and covered with hair, five or six inches in length, it frequently turns up on its back, like a squirrel, and it then

resembles a plume of feathers. The cat of Angora is larger than the common wild cat. Some of the individuals of this kind are white, others of a dun colour; and all of them have a ruff of long hair round the neck, which gives them the appearance of small lions.

THE SERVAL.

This is a beautiful animal of the cat tribe, somewhat larger than the wild cat, and inhabits the mountainous parts of India. Its general colour is a pale yellow, but white on the belly and breast. The whole body is variegated with black spots, equally distributed on every part. The eyes are extremely bright and piercing, the tail short, and the feet armed with long, hooked claws.

The serval is extremely fierce, but avoids man, unless provoked, when it will dart furi-

ously on the offender and attack him with teeth and claws in the same manner as the panther. It is seldom seen on the ground, living chiefly in trees, where it makes a nest, and rears its young, subsisting chiefly on birds, in pursuit of which it leaps from tree to tree with astonishing agility.

THE LION.

From his great size, and prodigious strength, the lion, undoubtedly the most dignified and majestic of quadrupeds, has been for ages popularly styled "The King of Beasts," and older travellers and poets have invested him with such attributes of courage, generosity, and magnanimity, as are not altogether confirmed by the observations of modern writers and naturalists.

The lion is spread over the whole continent

of Africa and the tropical regions of Asia. The average length of the African lion, from the end of the muzzle to the insertion of the tail, is about six feet, and the height above three feet. Some individuals, indeed, reach eight feet, and the Asiatic species has been known to exceed ten feet in length. His head is very large; his face is covered with short close hair, while the upper part of the head, the neck, and the shoulders, are coated with long, shaggy hair, hanging down below the breast and over the shoulders like a mane; the hair of the body being long, smooth, and of a uniformly pale tawny colour, inclining to white on the lower part. The tail is terminated by a long tuft of rather black hair, which is peculiar to the species.

The interior of Africa is more peculiarly the dominion of the lion, where he reigns supreme among the weaker animals. Dwelling in the thickest part of the forests, he

seldom shows himself by day, in consequence of the formation of his eye, which nearly resembles that of the eat; at the approaeh of night he quits his retreat, and prowls about in search of prey, usually coneealing himself in a thicket, from whieh he suddenly darts upon his victim. His roar, when exasperated, is generally eompared to thunder, and, being reechoed by the rocks and mountains, appals all the other speeies of quadrupeds. He usually knocks down his prey with his paw, and rarely attacks it with his teeth till he has inflieted the mortal blow. His teeth are so strong that he breaks the largest bones with ease, and swallows them with the flesh.

The lion does not willingly attack any animal unless provoked, or extremely hungry: in the latter ease he is said to fear no danger and to be repelled by no resistanee. His method of taking his prey is almost always to throw himself upon it with one prodigious

bound from his place of concealment: but, if he chances to miss his object, he will not, according to the invariable report of the Hottentots, pursue it any further, but, as though he were ashamed, turning round to the place where he lay in ambush, he will slowly, and step by step, measure as it were the exact distance between the two points, to ascertain how much he fell short of or exceeded his mark.

The following story, however, shows that the lion is not deficient in perseverance:—A Hottentot driving his master's cattle into a pool of water between two ridges of rock, perceived a huge lion couching in the midst of the pool. The beast seemed to have his eyes fixed upon him. Terrified at the unexpected sight, he took to his heels, and ran through the herd, concluding that if the lion should pursue he would content himself with the first beast he came to. The lion, contrary to his

expectation, dashed through the herd, making directly after the Hottentot, who, on looking round and observing that the monster had singled him out, contrived to scramble up a tree-aloe, in the trunk of which a few steps had been cut for the purpose of ascending to some birds' nests in the branches. The lion made a spring at him, but, missing his aim, fell to the ground. In surly silence he walked round the tree, casting at times a terrific look towards the poor Hottentot, who had crept behind the nests, which belonged to a small bird of the Loxia family, which builds its nests in clumps, sometimes not less than ten feet in diameter, and containing a community of several hundred individuals. Under cover of one of these structures the Hottentot screened himself from the sight of the lion. Here, having remained silent and motionless for a considerable time, he ventured at length to peep over the side of the nest, hoping that

the lion had retired: but, to his astonishment and horror, his eyes met those of the formidable animal, which, as the poor fellow afterwards expressed it, flashed fire at him. At last the lion laid himself down at the foot of the tree, and did not move from the place for twenty-four hours, at the end of which time he went to a spring at some distance to drink. The man then ventured to descend, and scampered off to his home, which was not more than a mile distant, as fast as he could. He arrived in safety; but such was the perseverance of the lion that, as it afterwards appeared, he returned to the tree, and, perceiving that the Hottentot was gone, tracked him by the scent to within three hundred paces of the house.

Another striking instance of the courage and perseverance of the lion is related by Sparrman. One of these animals had broken into a walled enclosure in which cattle were kept, through the latticed gate, and done con-

siderable damage. The people belonging to the farm, sure that he would comc again, stretched a rope across the entrance, fastening to it several loaded guns in such a manner that they must necessarily discharge their contents into the body of the lion as soon as he should push against the cord, as he was expected to do, with his breast. The lion accordingly came before dark; but, having probably some suspicions respecting the cord, he struck it away with his foot, and, undaunted by the report of the loaded pieces, he advanced steadily, and devoured the prey which he had left untouched bcfore.

The prodigious strength of this animal may be inferred from the following facts :—A lion was once seen at the Cape to take a heifer in his mouth, and, though the animal's legs dragged on the ground, he seemed to carry her off with as much casc as a cat does a rat, leaping with her over a broad ditch without any diffi-

culty. Sparrman was assured by two farmers on whose veracity he could rely, that, when hunting near Bosjesman's River with several Hottentots, they perceived a lion dragging a buffalo from the plain to a wood upon a neighbouring hill. They soon forced him to quit his prey, in order to make prize of it themselves, and found that he had had the sagacity to take out the heavy entrails of the buffalo to lighten the carcase. It is not by strength alone, however, that he conquers so large an animal, for which purpose he is obliged to resort both to agility and stratagem. Stealing upon the buffalo, he fastens with both his fore-paws upon the mouth and nostrils of the beast, which he squeezes close together till the poor animal is stifled. One of the colonists was said to have witnessed a circumstance of this kind, and others asserted that they had seen buffaloes which must have escaped from the clutches of lions, bearing marks

of their claws about the muzzle. They declared, however, that the lion endangered his life in such an attempt, espccially if any other buffalo was near to assist his companion. It was relatcd that a traveller once had an opportunity of seeing a female buffalo with her calf, covered in the rear by a river, kcep at bay for a long time five lions which surrounded her, and durst not, so long as the traveller was in sight, vcnture upon an attack.

Thc lion of South Africa is said to prefer the flesh of the Hottentot to that of any other animal; and next to this he manifcsts the greatest fondness for the flesh of the horse and the buffalo. The shecp he seldom deigns to prey upon, being probably too indolent to take the trouble of stripping off its woolly covering. It is commonly believed that he will devour as much at once as will serve him for two or three days; and that, when glutted with food, he returns to his den, where he remains in-

active till hunger again compels him to sally forth in quest of more.

Mr. Pringle, who was a settler in the eastern frontier of the Cape colony, has given, in his "Ephemerides," a highly picturesque description of the perils incident to lion-hunting in Southern Africa. The marauder in this instance had stolen a few of the writer's sheep and killed his riding-horse, about a hundred yards from the door of his cabin; and, knowing that this animal, when he does not carry off his prey, usually conceals himself in the vicinity, and is apt to be very dangerous by prowling about the place in search of more game, he collected his Scottish neighbours, and about a dozen bastaard, or mulatto, Hottentots to assist in dislodging the enemy.

"The first point," says Mr. Pringle, "was to track the lion to his covert, This was effected by a few of the Hottentots on foot. Commencing from the spot where the horse

was killed, we fairly traeked him into a straggling thieket of brushwood and evergreens about a mile distant. The next objeet was to drive him out of this retreat, in order to attaek him in close phalanx and with more safety and effeet. The approved method in sueh cases is to torment him with dogs till he abandons his eovert and stands at bay in the open plain. The whole band of hunters then mareh forward together, and fire deliberately one by one. If he does not speedily fall, but grows angry and turns on his enemies, they must then stand elose in a eircle and turn their horses rear-outward; some holding them fast by the bridle, while the others kneel to take a steady aim at the lion as he approaehes, sometimes up to the very horses' heels, eoueh-ing every now and then, as if to measure the distanee and strength of his enemies. This is the moment to shoot him fairly in the fore-head, or some other mortal part. If they eon-

tinue to wound him ineffectually till he waxes furious and desperate, or if the horses, startled by his terrific roar, grow frantic with terror and burst loose, the business becomes rather serious, and may end in mischief, especially if all the party are not men of courage, coolness, and experience. The frontier Boors are, however, generally such excellent marksmen, and withal so cool and deliberate, that they seldom fail to shoot him dead as soon as they get within a fair distance.

"Our Hottentots, after recounting to us all these and other sage laws of lion-hunting, were themselves the first to depart from them. Finding that the few indifferent hounds we had made little impression upon the enemy, they divided themselves into two or three parties, and rode round the jungle, firing into the spot where the dogs were barking round him, but without effect. At length, after some hours spent in beating about the bush,

the Scottish blood of some of my countrymen, began to get impatient; and three of them announced their determination to march in and beard the lion in his den, provided three of the Hottentots, who were superior marksmen, would support them, and follow up the fire, should the enemy venture to give battle. Accordingly, in they went, in spite of the warnings of some more prudent men among us, to within fifteen or twenty paces of the spot where the animal lay concealed. He was couched among the roots of a large evergreen bush, with a small space of open ground on one side of it; and they fancied, on approaching, that they saw him distinctly lying glaring at them from under the foliage. Charging the Bastaards to stand firm and level fair, should *they* miss, the Scottish champions let fly together, and struck—not the lion, as it afterwards proved, but a great block of red stone, beyond which he was actually lying. Whe-

ther any of the shot grazed him is uncertain; but, with no other warning than a furious growl, forth he bolted from the bush. The pusillanimous Bastaards, in place of now pouring in their volley upon him, instantly turned, and fled helter-skelter, leaving him to do his pleasure upon the defenceless Scots, who, with empty guns, were tumbling over one another in their hurry to escape the clutch of the rampant savage. In a twinkling he was upon them, and with one stroke of his paw dashed the nearest to the ground. The scene was terrific. There stood the lion with his foot upon his prostrate foe, looking round in conscious power and pride on the bands of his assailants, and with a port the most noble and imposing that can be conceived. It was the most magnificent thing I ever witnessed. The danger of our friends, however, rendered it too terrible to enjoy either the grand or the ludicrous part of the picture. We expected

every instant to see one or more of them torn in pieces; nor, though the rest of the party were standing within fifty paces, with their guns cocked and levelled, durst we fire for their assistance. One was lying under the lion's paw, and the other scrambling towards us in such a way as to intercept our aim at him. All this passed far more rapidly than I have described it. But luckily the lion, after steadily surveying us for a few seconds, seemed willing to be quit with us on fair terms; and, with a fortunate forbearance, for which he met with but an ungrateful recompense, turned calmly away, and, driving the snarling dogs like rats from his heels, bounded over the adjoining thicket like a cat over a footstool, clearing brakes and bushes, twelve or fifteen feet high, as readily as if they had been tufts of grass, and, abandoning the jungle, retreated towards the mountains.

"After ascertaining the state of our rescued

comrade, who fortunately had sustained no other injury than a slight scratch on the back, and a severe bruise in the ribs, from the force with which the animal had dashed him to the ground, we renewed the chase with Hottentots and hounds in full cry. In a short time we came up again with the enemy, and found him standing at bay under an old mimosa tree, by the side of a mountain stream. The dogs were barking around, but afraid to approach him, for he was now beginning to growl fiercely, and to brandish his tail in a manner that showed he was meditating mischief. The Hottentots, by taking a circuit between him and the mountain, crossed the stream and took a position on the top of a precipice overlooking the spot where he stood. Another party of us occupied a position on the other side of the glen; and, placing the poor fellow thus between two fires, which confused his attention, and prevented his retreat,

we kept battering away at him till he fell, unable again to grapple with us, pierced with many wounds.

"He proved to be a full-grown lion of the yellow variety, about five or six years of age. He measured nearly twelve feet from the nose to the tip of the tail. His fore-leg, below the knee, was so thick that I could not span it with both hands; and his neck, breast, and limbs appeared, when the skin was taken off, a complete congeries of sinews."

The lion of Hindostan is scarcely less formidable to the natives of that country than the tiger itself. An enormous animal of this species, supposed to be the largest ever seen in India, was killed some years since near Kurnaul. From the end of the nose to the the tail measured ten feet two inches; his height to the top of the shoulder, was four feet six inches; and the circumference of the fore-leg two feet four inches. He had killed

eight villagers, and done much other mischief before information of his being in the neighbourhood reached the British cantonments.

Of the dangerous nature of lion-hunting in India, the following narrative of a day's sport near Kaira, Bombay, in December 1811, will afford a sufficient illustration.

Intelligence having been received at Kaira, that three lions had been discovered in a small jungle two miles from Beereje, immediate preparations were made to go in quest of them. Subsequent accounts stated that the size and fierceness of the marauders had struck terror into the neighbouring villages; that six of the natives, who had incautiously approached their haunts, had been torn and mangled, and left to expire in the greatest agonies; and that it was no longer safe for the inhabitants to follow the usual occupations of husbandry, or to turn out their cattle, as several of them had been hunted down and killed.

These reports only served to stimulate the ardour of the sportsmen, and a party of sixteen having assembled, repaired to the scene of action, accompanied by a body of armed men belonging to the adaulut and revenue departments. The guides conducted them to the precise spot where the three lions were reposing in state. The party cautiously advanced to within a few paces of the jungle without disturbing the inmates. Three dogs which had joined the hunt, unconscious of the danger, pushed on, and were received with such a sepulchral groan as made the bravest for a moment hold in their breath. One of the dogs was killed, and the other two fled and were seen no more.

Presently a lioness was indistinctly perceived at the mouth of the den. A few arrows were discharged, with a view to irritate her, and to induce her to make an attack on her assailants: but she broke cover in an opposite di-

rection, accompanied by two cubs about two-thirds grown. The party pursued on foot as fast as the newly ploughed ground would permit, till suddenly one of the men who had been stationed in the trees called out to the hunters to be upon their guard. In consequence they turned aside to some heights, whence they descried an enormous lion approaching them through an open field at an easy canter, and lashing with his tail in a style of inexpressible grandeur.

The foremost of the party presented their pieces, and fired just as the animal had cleared at one bound a chasm twelve feet broad which was between them. Though apparently wounded in the shoulder, he sprung at one of the gentlemen, whose arm he dreadfully lacerated. Feeling at the same moment a peon's lance, he relinquished his first hold, seized the poor man by the throat, and strangled him before the party durst fire for fear

of killing his victim. He was now at bay, but sheltered in such a manner as rendered it difficult to bring him down; when, suddenly, the man on the look-out gave another alarm, and the party almost immediatcly perceived a lioness, which had broken cover, approaching their rear. At the same instant they heard the shrieks of men, women, and childrcn, occasioncd by the animal crossing the road in the midst of the coolees, who were carrying refreshments to the village. A woman and child were almost immediately sacrificed, the former being literally torn in pieces.

The gentlemen, with the peons, now left the first enemy to attack the lioness, who threatened the village. From the rapidity of the pursuit, the party could not keep very compact. Four of the collcctor's peons having approached the spot where the lioness had lain down, she immediately sprang upon the nearest, brought him to the ground, crushed

his scull, and tore his face so that not a feature was distinguishable, and his flesh literally hung in the wind. A companion, who advanced to his assistance, was seized by the thigh : in the agony of pain the man caught the beast by the throat, when she loosed his thigh and fastened on his arm and breast. At this moment the gentlemen approached within fifteen paces, and, while she was still standing over her victim, lodged twenty balls in her body. She retreated to the hedge, where some more shot put an end to her life. Both the peons died in a few hours.

So many lions have been brought to Europe, that they are become very common in our menageries. When taken young, they are capable of being rendered very gentle and tractable. Many of our readers may have seen the keepers and strangers also take all sorts of liberties with these formidable animals, and even put their heads into their jaws, with-

out their showing any signs of anger. The Bengal lion and the two African lions in the Tower allow great familiarities to their keepers. But it is not always safe to trust oneself in their power, for the natural ferocity of some lions is never wholly subdued. A few years since, a lion belonging to a small collection of wild beasts killed a man, who, being newly appointed to the charge of them, ventured into his cage and struck him there; and the same animal tore the scalp from the head of a boy who had incautiously approached too near his cage at Bartholomew fair.

Numerous instances of the gentleness, sagacity, and gratitude of the lion, while in a state of domestication, are nevertheless on record. He has been known to spare the lives of animals thrown in to be devoured by him; to live peaceably with them; to afford them part of his food; and even to want food himself, rather than deprive them of that life which

his generosity once spared. Some years ago a dog was put into the cage of a lion in the menagerie of the Tower, for food; but the stately animal spared his life, and they dwelt together for a long time in the same den in perfect harmony, and appeared to have a great affection for one another. The dog had sometimes the impudence to growl at the lion, and even to dispute with him the food that was thrown to them; but the noble beast was never known to chastise his little companion for his impertinent conduct, but usually suffered him to eat quietly till he was satisfied, before he began his own repast.

A singular instance of the same kind of generosity was displayed at Vienna in 1791, at a combat exhibited between a lion and a number of large dogs. As soon as the noble animal made his appearance, four large bull-dogs were turned loose upon him; but three of them, when they came near him, took fright

and ran away. The fourth alone had courage to remain and make the attack. The lion, without rising from the ground on which he was lying, with a single stroke of his paw instantly stretched the rash assailant motionless; he then drew him towards him, and laid his fore-paws upon him in such a manner that only a small part of his body could be seen. The spectators concluded that the dog was dead, and that the lion would devour him. Presently, however, the dog began to move, and struggled to get loose, which the lion permitted him to do; apparently intending only to warn his adversary by what had happened not to meddle with him any more. But when the dog attempted to run away, and had already got halfway across the enclosure, the indignation of the lion seemed to be roused: he leaped from the ground, and in two bounds reached the fugitive, who had just gained the paling, and was whining to have

the door opened for his escape. The flight of the animal had called into action the instinctive propensity of the monarch of the forest; his defenceless enemy now excited his pity; and the generous lion stepped back a few paces and looked quietly on while a small door was opened to let the dog out of the enclosure. A shout of applause was raised by the assembly, who received a gratification far superior to what they had expected.

Brown relates, that while he was resident at Darfur, he purchased two lions, one of which was only four months old. This animal he rendered, by degrees, so tame that he acquired most of the habits of a dog. He would satiate himself twice a week with butchers' offal, and then commonly sleep for several hours successively. When they were together, and food was given to them, they were furious to each other, and to any one who approached them; but, excepting at such times, though

both were males, they never disagreed, or manifested any signs of ferocity towards the human race. Even lambs passed them without molestation. The sultan had also two tame lions, which, with their attendant, always came into the market to feed.

The lion is a long-lived animal. Buffon calculated that the duration of his life might be about twenty-five years; but we know that it sometimes extends, even in confinement, to a much longer period. The great lion, called Pompey, which died in the Tower in 1760, had been there above seventy years, and another died in the same place at the age of sixty-three.

THE LIONESS.

The lioness differs from her mate in not having a mane, in the comparative smallness of her head, and the more slender proportions of her body. Assisted by the lion, she nurses her cubs with the greatest care and assiduity, and accompanies them in their first excursions for plunder.

It is asserted that the lioness occasionally manifests symptoms of jealousy, as an instance of which the following anecdote is related:— In the beginning of the last century, a lion and lioness were kept in the menageric of the landgrave of Hesse-Cassel, in two cages, close to each other, separated by a single grating, and communicating by means of a door, which could be opened whenever it was thought proper to let the two animals be together.

LIONESS

They were both very tame towards the keeper and his wife. The latter, having once caressed the lion for a considerable time, the lioness observed it with evident tokens of displeasure, and showed an inclination to break through the grating to get at the woman. The door of communication between the two cages, not being properly secured, unluckily gave way; and the lioness, darting at the woman, would have sacrificed her to her jealous fury, had not the lion interposed and defended her.

THE TIGER.

The tiger, commonly called the royal tiger, is confined to the hot countries of Southern Asia, westward of the Indus, and extending northward to China. No country, however, is so much infested with tigers as Hindostan, and no part of that peninsula so much as the

province of Bengal, the southern portion of which, towards the mouths of the Ganges, forming a vast labyrinth of woody islands called the Sunderbunds, may be called the great rendezvous of these destructive animals.

Of all the species of the cat family the tiger is the largest, the strongest, and the most ferocious; so completely resembling in form the domestic cat, that the latter might almost be called a tiger in miniature. It is as beautiful as it is formidable. The purity of the white colour about the forehead, and under the throat and belly, is superbly contrasted by the jet black of the stripes with which the face, back, sides, tail, and legs, are profusely marked, and by the bright reddish brown, and occasionally yellow, of the ground or prevailing tint of its hide. The enormous size which it attains in Sumatra and Hindostan, combined with these beautiful markings, causes tiger-skins from those countries to be favourite ar-

ticles of furniture in the houses of the wealthy Chinese; though, for texture and general quality, the furriers of Europe deem them inferior to the skins of the leopard and panther of the Old World and the jaguar of the New.

The average height of the tiger is about three feet, and the length nearly six; but the species varies considerably in size, some individuals having been found much taller and longer than the lion himself. The largest tigers of Bengal measure ten feet, exclusively of the tail, and some of them are as high as a middle-sized horse.

The tiger is commonly considered to be unequal to the lion in muscular strength, but the efforts which the former has been often known to make contradict this opinion. Nothing can daunt the temerity or repress the ravages of this fierce marauder when goaded by hunger. Under this impulse he will quit the

forests for the public roads, and, abandoning the chase of wild beasts, make man his favourite prey. An official report made in 1819 to the government of India, showed that, in a single district of no great extent, eighty-four inhabitants had been devoured in the preceding year by tigers. In the low marshy islands at the mouth of the Ganges, numbers of the persons employed in the salt works are annually destroyed by these daring animals, which will even take to the sea and swim from one island to another in quest of prey. In short, the tiger is the scourge of a great portion of southern Asia and of the Indian islands.

The swiftness and the strength of this animal are such, that it will seize a man on horseback, pull him from the saddle, and, holding him in his mouth, carry him by surprising bounds or leaps into the nearest covert. The weight of a man, or even a heavier animal, in its mouth, does not appear to incommode it

or to impede its ordinary swiftness. One blow of its fore-leg is sufficient to break the leg of a horse or even a buffalo.

Some conception of the strength of the tiger may be formed from the following circumstance:—A buffalo belonging to a peasant fell into a quagmire, and, the united efforts of several men to extricate him proving ineffectual, the owner went to seek further assistance. During his absence a prodigious tiger came and drew out the animal. When the people returned, the first thing they saw was the tiger with the buffalo thrown over his shoulder as a goose is by a fox: he was carrying him off, with his feet upwards, to his den. As soon as he perceived the men, he dropped his prey and fled to the woods: but he had previously killed the buffalo and sucked his blood. When it is considered that the buffalo frequently grows to twice the size of our ordinary cattle, some notion may be

formed of the immense strength of a beast which could thus run off with a carcase more than twice as large as itself.

The tiger leaps upon his prey like the lion, frequently clearing more than twelve feet at a spring. Such, we are told, is the terror with which he strikes other beasts, that at sight of him the horse trembles all over, lies down, and resigns himself to his fate without attempting either to fight or fly. He never roars when near his prey, unless he be ravenously hungry. D'Obsonville describes his roar as particularly horrid. It begins, he says, by intonations and inflections at first deep, melancholy, and slow; presently it becomes more acute, when the animal, suddenly collecting himself, utters a violent cry, interrupted by long tremulous sounds, which together make a distracting impression upon the mind. It is chiefly in the night that this is heard, when silence and darkness add to

the horror, and the roarings are repeated by the echoes of the mountains.

Perrin styles the tigers the guardacostas of the Ganges, from the vigilance with which they watch vessels sailing up and down the river. The crews of boats are always provided with hatchets, for the purpose of chopping off the enormous paws of the tigers when they set them on the gunwale. We are assured that, let the crew of a boat be ever so numerous, if there happens to be a single Black among them, the ferocious beast selects the latter in preference to all the rest, probably attracted by the peculiar smell arising from the skin of the natives.

The tiger appears to prefer human flesh to any other prey, and takes all opportunities of gratifying this taste, even in defiance of a large company. In this manner the unfortunate Mr. Munro, son of Sir Hector Munro, was killed in 1792 by a tiger on Sangar island,

in the Ganges. "We went on shore," says one of the company, "to shoot deer, of which we saw innumerable tracks, as well as of tigers; notwithstanding which we continued our diversion till near three o'clock, when, sitting down by the side of a jungle to refresh ourselves, a roar like thunder was heard, and an immense tiger seized our unfortunate friend, and rushed again into the jungle, dragging him through the thickest bushes and trees, every thing giving way to his monstrous strength: a tigress accompanied his progress. The united agonies of horror, regret, and fear rushed at once upon us. I fired on the tiger: he seemed agitated: my companion fired also, and in a few moments our unfortunate friend came up to us bathed in blood. Every medical assistance was vain, and he expired in twenty-four hours, having received such deep wounds from the teeth and claws of the animal as rendered his recovery hopeless. A large

fire consisting of ten or twelve whole trees was blazing by us at the time this accident took place, and ten or more of the natives were with us. We had hardly pushed our boat from that accursed shore, when the tigress made her appearance, almost raging mad, and remained on the sand while we continued in sight."

In 1812 a party of British naval and military officers were dining in a jungle at some distance from Madras, when a ferocious tiger rushed in among them, seized a young midshipman, and flung him across his back. In the first emotion of terror, all the other officers snatched up their arms and retired some paces from the assailant, who stood lashing his sides with his tail, as if doubtful whether he should seize more prey or retire with what he had secured. They knew that it is usual with the tiger, before he seizes his victim, to deprive it of life by a pat on the head, which generally

breaks the skull; but this is not his invariable practice. Though the little midshipman lay motionless on the back of his enemy, the officers were uncertain whether he had received the mortal pat or not, and were consequently afraid to fire, lest they should kill him together with the tiger. While they were in this state of suspense, they perceived the hand of the youth gently moving over the side of the animal, and, supposing the motion to be the effect of the convulsive throbs of death, they were about to fire, when, to their utter astonishment, the tiger suddenly dropped stone dead; and their young friend sprang from the carcase, triumphantly waving a bloody dirk drawn from the heart, for which he had been feeling with the utmost coolness and circumspection, when the motion of his hand had been mistaken for a dying spasm.

The following curious fact, related by Pennant, shows that the tiger, like the lion, may

be easily daunted by any sudden opposition from human beings. Some ladies and gentlemen, being on a party of pleasure, under the shade of a clump of trees, on the bank of a river in Bengal, observed a tiger preparing for a fatal spring. One of the ladies, from the impulse of the moment, laid hold of an umbrella, and furled it full in the face of the animal, which, intimidated by the unusual phenomenon, immediately retired.

A tiger of immense size had destroyed so many persons in the neighbourhood of Chandernagore that the whole population was summoned out to deliver the country from his depredations. A detachment of troops also was ordered by the governor to go in quest of the monster, which was discovered lying apparently asleep. A volley was fired; the animal lay motionless, and was conceived to be dead. The sergeant went up to look at his victim, when the tiger raised his paw, struck his talons

into his head, and tore away the whole flesh of his face, eyes, nose, mouth and all. The paw then dropped and the animal expired. He measured thirteen feet from the tip of the nose to the extremity of the tail.

When the tiger is hungry nothing will deter him from his object. The dawks or postmen throughout India travel on foot: one man carrying the letter-bag over his shoulder, and being accompanied at night, and through all suspicious places in the day-time, by one or more men with small drums and an archer. These precautions are not sufficient to intimidate the ravenous animal during the day, notwithstanding his antipathy to noise, any more than two strong flambeaux which the postman carries at night. It is a well known fact that a tiger occupied a spot in the Goomeah pass nearly a fortnight, during which he daily carried away a man, generally one of the postmen. One day he was disap-

pointed of his meal, having carried off the leathern bag instead of the bearer; but he made himself amends the following night by seizing one of the torchmen, with whom he presently disappeared.

The number of stragglers taken by tigers from a line of march, when troops are proceeding through a close country, would astonish persons not accustomed to such events. In 1807, two tigers appeared in the island of Salsette, and carried off nine persons. The inhabitants were firmly persuaded that these marauders were not beasts, but two evil spirits disguised under the forms of a royal tiger and tigress, with human faces and large gold rings in their ears and noses. This opinion prevailed so strongly, that they would not attempt to kill them, though a large reward was offered for their destruction.

The island of Cossimbazar was formerly almost depopulated and rendered uninhabit-

able by the numerous tigers which infested it. This evil has of late years been greatly lessened, in consequence of the premiums offered by the East India Company for the extirpation of those mischievous animals, and which in the year 1802 amounted to £15,000 sterling.

The tiger is reported to use sometimes no small degree of artifice for securing his prey. Dr. Fryer mentions a curious stratagem employed by him for catching monkeys. The woodmen, says he, assert that, at the approach of a tiger, the monkeys give warning by their confused chattering, and immediately betake themselves to the smallest and highest branches of the trees. The tiger, seeing them out of his reach, and sensible of their fright, lies couching under the tree and then falls a roaring. They tremble, let go their hold, and tumble down, on which he picks them up and satisfies his hunger. The accuracy of this account was confirmed to Mr.

Forbes by the peasants in the wilds of Bhadespoor.

The author of the "Oriental Field Sports" describes several ingenious methods practised in Hindostan for destroying tigers, and among them the following:—When the track of a tiger has been discovered, the peasants collect a quantity of the leaves of a tree called *prauss*, which resemble those of the sycamore, and are common in most underwoods, as they form the greater portion of most jungles in the north of India. These leaves are smeared with a species of bird-lime made by bruising the berries of an indigenous tree: they are then strewed, with the gluten uppermost, near the spot to which, as it is believed, the tiger usually resorts during the noontide heats. If the animal should tread on one of the smeared leaves his fate may be considered as decided. He commences by shaking his paw, with a view to remove the adhesive incumbrance;

but, finding no relief from that expedient, he rubs the nuisance against his face with the same intention; by which means his eyes, ears, and face become agglutinated. The consequent uneasiness causes him to roll upon perhaps more of the smeared leaves, till at length he becomes completely enveloped and is deprived of sight. In this state he may be compared with a man who has been tarred and feathered. The anxiety produced by this strange predicament is soon expressed in dreadful howlings, which are signals to the watchful peasants, who now find no difficulty in dispatching their formidable enemy.

Another device for destroying tigers, employed towards the north of the Indian peninsula, consists of a large semispherical cage, made of strong bamboos, or other efficient materials, woven together, but leaving intervals throughout about four or five inches broad. In this cage, which is fastened to the

ground by means of piekets in some plaee where tigers abound, a man provided with two or three short, strong spears, posts himself at night. Being aeeompanied by a dog, which gives the alarm on the approaeh of the enemy, or by a goat whieh, by its agitation, answers the same purpose, the adventurer wraps himself up in his quilt, and very composedly goes to sleep in full eonfidenee of his safety. When a tiger eomes, and, after smelling all round, begins perhaps to rear against the eage, the man stabs him with one of the spears through the interstiees of the wieker-work, and rarely fails of destroying the assailant, who is commonly found dead at no great distance in the morning.

The usual method of hunting the tiger in Hindostan is with elephants. Sueh a hunt on the banks of a river is a truly extraordinary spectaele. The tiger, being an excellent swimmer, takes to the water. The elephant

also swims well, holding his trunk above the the surface. Some of the party remain on the bank, while others, mounted on their elephants, plunge into the river in pursuit of their game. The sport, even when pursued in this manner, is extremely dangerous, the tigers sometimes boldly attaeking the elephants, and striving to get at their riders.

The late Sir John Day, after relating the particulars of one of these hunts, when several ladies were of the party and four tigers were killed, eoneludes his account with the following affeeting incident:—"An old woman, looking earnestly at the largest tiger, pointing at times to his tusks, and at times lifting his fore-paws, and viewing his talons, her furrowed cheeks bathed in tears, in broken and moaning tones narrated something to a little circle composed of three Bramins and a young woman with a child in her arms. No human misery could pieree the phlegm and apathy of

the Bramins, and not a feature of theirs was softened: but horror and sorrow were alternately painted in the face of the female, and, from her clasping her child more closely to her breast, I guessed the subject of the old woman's story. On inquiry I found that I was right in my conjecture. She was widowed and childless; she owed both her misfortunes to the tigers of that jungle, and most probably to those which then lay dead before her; for they, it was believed, had recently carried off her husband and her two sons, grown up to manhood, and now she wanted food. In the phrenzy of her grief, she ultimately described her loss to the crowd, and in a wild scream demanded her husband and her children from the tigers. It was indeed a piteous spectacle."

Tigers are very frequent in China, though so populous a country that we should have conceived it impossible for them to have re-

mained so long unextirpated. In the northern roads of the empire, hundreds of travellers are to be seen with lanterns carried before them for security against these ravenous animals. In Java they are much dreaded, as they frequently carry off travellers; hence, when any person of consequence has occasion to go into the country, he is attended by men blowing continually a kind of small French horn, the shrill sound of which scares away the tigers.

The tiger is not unsusceptible of the same kind of generosity which has been observed in the lion. Lieutenant White informs us, in the narrative of his "Voyage to Cochin-china," that a beautiful female of the royal species, about two years old, nearly three feet high and five long, was presented to him by the governor of Saigon. "In Saigon," says Mr. White, "where dogs are dog-cheap, we used to give the tigress one every day. They were

thrown alive into her cage; when, after playing awhile with her victim, as a cat does with a mouse, her eyes would begin to glisten, and her tail to vibrate, which were the immediate precursors of death to the devoted prisoner, which was invariably seized by the back of the neck, the incisions of the sanguinary beast penetrating the jugular arteries, while she would traverse the cage, which she lashed with her tail, and suck the blood of her prey, which hung suspended from her mouth. One day a puppy, not at all distinguishable in appearance from the common herd, was thrown in. Immediately on perceiving his situation, he set up a dismal yell, and attacked the tigress with great fury, snapping at her nose, from which he drew some blood. The tigress appeared to be amused with the puny rage of the puppy, and, with as good-humoured an expression of countenance as so ferocious an animal could be supposed to assume, she

affected to treat it all as play; and, sometimes spreading herself at full length on her side, at others couching in the manner of the fabled sphinx, she would ward off with her paw the incensed little animal; till he was finally exhausted. She then proceeded to caress him, endeavouring by many little arts to inspire him with confidence, in which she finally succeeded, and in a short time they lay down together and slept. From this time they were inseparable; the tigress appearing to feel for the puppy all the solicitude of a mother, and the dog in return treating her with the greatest affection; and a small aperture was left open in the cage, by which he had free ingress and egress. Experiments were subsequently made by presenting a strange dog at the bars of the cage, when the tigress would manifest great eagerness to get at it. Her adopted child was then thrown in, on which she would eagerly pounce; but im-

mediately diseovering the eheat, she would caress it with great tenderness."

It appears that the tiger, when taken young, may be rendered as doeile as the lion. We are told that the fakeers, or mendicant priests, of Hindostan, have their tame tigers, which aceompany them in their walks, and remain in the vieinity of their huts without attempting to eseape: and the tigers in our menageries appear, in general, to be under as complete eontrol as any of the speeies of the cat tribe.

A beautiful young tiger, brought from China in the Pitt East Indiaman, at the age of ten months was so far domestieated, as to admit of every kind of familiarity from the people on board. He appeared to be quite harmless, and as playful as a kitten. He frequently slept with the sailors in their hammocks, and would suffer two or three of them to lay their heads upon his back, as a pillow,

when he was stretched out upon the deck. In return, however, he would now and then steal their meat. Having one day stolen a piece of beef from the carpenter, he followed the tiger, took the meat out of his mouth, and beat him severely for the theft, which punishment he suffered with all the patience of a dog. He would frequently run out upon the bowsprit, climb about the ship like a cat, and perform a number of tricks with truly astonishing agility. There was a dog on board, with which he would often play in the most diverting manner. This animal was taken on board the ship when he was only a month or six weeks old, and arrived in this country before he had quite completed a year. Whether he afterwards retained the playful innocence of his character we are not informed.

The tigress manifests the strongest affection for her young, in defence of which her rage is unbounded. If robbed of them, she

pursues the plunderers with the utmost fury and perseverance, and often obliges them to drop at least some of the number, to save themselves from her attack. Captain Williamson relates, in his "Oriental Field Sports," that two tiger cubs were brought to him while stationed in the Ramghur district in India. They had been found, with two others, by some country people during the absence of the mother. Being put into a stable, they made a loud noise for several nights, till at length the tigress arrived to their rescue, and replied to them by the most fearful howlings. The cubs were at last set at liberty, from apprehension that the mother would break in; and it was found in the morning that she had carried them off to the neighbouring jungle.

THE LEOPARD.

The leopard, though considered by some naturalists as a variety only of the panther, has such specific characters as to entitle it to the rank of a distinct branch of the family of *Felis*. His height is about two feet, and his average length scarcely four. The ground colour of his skin is a yellowish fawn, which gradually becomes a perfect white on the under parts of the body; on the back, head, neck, and limbs, it is covered with black spots of a circular or oval shape. On the sides and part of the tail, the spots form ten or twelve ranges of distinct roses, surrounding a central space of a somewhat deeper colour than the general ground. The panther has no more than six or seven ranges of these roses. Leopards of a black colour, with still darker

spots, are occasionally met with in the East Indies, but this difference is regarded as merely accidental. The leopard is smaller than the panther, but its proportions are longer; it is of a more slender and graceful figure, with the exception of its fore-legs and feet, which are more muscular and powerful than the panther's. Its head is more flattened and oval, and its tail longer and more tapering.

While the panther inhabits northern Africa, the leopard is confined to the central regions of that continent. In Asia the latter is the less common of the two, and, as in Africa, its range is far more limited. Mr. Meredith informs us that the leopard is still an inhabitant of the countries bordering on the Gold Coast. He is dreaded by the natives for his ferocity, but is a favourite object of the chase with the warlike chieftains of those black nations. From the accounts of more recent tra-

vellers, the depredations of the leopard in this part of Africa are not confined to nightly irruptions into the pens and folds of tame cattle; but he frequently carries off young children, when he meets with them unprotected. Still, less fierce than the panther, the leopard seldom ventures to attack a man: should he accidentally encounter one, even unarmed, he betakes himself, with the strongest symptoms of fear, to the coverts of the forest or the desert.

In watching for his prey, the leopard crouches on the ground, with his fore-paws stretched out and his head between them, his eyes being rather directed upwards. His appearance in his wild state is exceedingly beautiful; his motions in the highest degree easy and graceful, and his agility in bounding among the rocks and woods truly amazing. Of this activity no idea can be formed by those who have merely seen these animals in

the cages, in which they are usually exhibited in Europe, tamed by confinement and the damp cold of the climate.

On some parts of the west coast of Africa, the leopard is often seen at night in the villages of the negroes; but, being there considered a sacred animal, he is never hunted, though women and children are frequently destroyed by him. In South Africa he is chiefly found in the mountainous districts, where he preys on antelopes, young baboons, and rock rabbits, seldom venturing to attack mankind unless when driven to extremity: yet, in remote places, his low half-smothered growl is often heard at night as he prowls around the cottage or the cattle-pens, where he sometimes makes great havoc among the young foals, calves, and sheep.

The leopard is often caught in traps made of large stones and timber, upon the same principle as a common mouse-trap. When

caught in this manner, he is usually baited with dogs, in order to train them to attack him, and he seldom dies without killing one or two of them.

The leopard of India is called by the natives "the tree-tiger," from his habit of climbing trees like a cat, either to escape pursuit, or for the purpose of darting—we might almost say flying—from them upon his prey. In the construction of his feet, he has no greater facilities for effecting this ascent than the lion or the tiger; hence it is no doubt the extraordinary flexibility of his limbs that gives him this power of springing upward. Even in these elevated situations, however, it is very difficult to shoot him, on account of the rapidity of his movements. Thus, too, the leopards in the Tower, which have a tolerably spacious cage, bound to and fro with the quickness of a squirrel, so that the eye can scarcely follow their motions.

The natives have an ingenious method of taking the young cubs of the leopard. These they can readily secure when they discover the den of this animal, should the dam be absent: but, in general, they are followed by her, when, to appease her, they throw her one of the cubs, with which she retires, leaving them to bear off the rest of their prize. Her affection for her young sometimes prompts her to return and pursue the hunters before they have reached a place of safety. In this case they throw her another of the cubs; but it more frequently happens that she remains to protect the one she has recovered. The leopard, when taken young, may be tamed and rendered subservient to the purposes of man. Mr. Barrow procured in Africa a young leopard, which, he says, "became instantly tame, and as playful as the domestic kitten; and Mrs. Bowdich (now Mrs. Lee), widow of the traveller of that name, had, and may still

have, a tame leopard, of which she has given a very interesting account in Loudon's "Magazine of Natural History."

The Gardens of the Zoological Society contain a fine specimen of the panther from the eastern and the leopard from the western coast of India, which afford the curious investigator a favourable opportunity to compare the one with the other.

THE HUNTING LEOPARD.

The chectah, or hunting leopard of the East Indies, is a handsome animal, about the size of the Pomeranian dog, and has received its name from the purpose to which it is trained. It has no mane, and is therefore to be carefully distinguished from the maned hunting leopard of Africa. Both are in fact but varieties of the panther; the Afri-

Hunting Leopard.

Lynx.

London Publ.d as the Act directs. by T. Harris St. Pauls Church Yd. Dec.r 1833

can animal differing from the Indian in the peculiarity of a slight, thin, hog-shaped mane upon its neck, the comparative shortness of its legs, and the small, black, round spots with which its hide is covered. The Indian cheetah, on the contrary, has longer legs and neck, and the ground of its skin is of a brighter yellow: it has no appearance whatever of a mane; and its whole aspect has been described to be "more canine" than its African relative.

"It is distressing," says Johnson, in his 'Field Sports of India,' "to see these animals catch deer. They are let out in chains, with blinds over their eyes, and sometimes carried out in carts; and when antelopes or other deer are seen in a plain, should any of them be separated from the rest, the cheetah's head is brought to face it; the blinds are removed, and the chain taken off. He immediately crouches and creeps along, with his belly

almost touching the ground, until he gets within a short distanee of the deer, who, although he sees him approaeh, appears so fascinatcd that he seldom attempts to run away. The eheetah then makes a few surprising springs and seizes him by the neek. If many deer are near eaeh other, they often eseape by flight; their number, I imagine, giving them eonfidenee, and preventing their feeling the foree of that fascination which, in a single deer, produees a sort of panie, and appears to divest him of the powcr and even the inclination to run away or to make resistanee. It is elear that they must always eateh them by stealth, or in the manner I havc deseribed, for they are not so swift even as eommon deer."

The same writer mentions his having seen several hunting-leopards, merely hooded and tied up under a shed in the open street at Ellickpoor. For the chase they are taken out in a cart, brought near a herd of deer,

and then, being unhooded, and slipped at them, they fix on one, and fasten it down until it is taken from them. If they miss their spring, they give up the pursuit, and slink back to their keepers.

According to Blumenbach, the cheetah has for centuries been employed in Barbary in the pursuit of deer, and was used for the same purpose both in France and Italy during the middle ages.

The Cape colonists relate many frightful and sometimes fatal encounters between the hunting leopard and his pursuers. The following circumstance occurred in 1822. Two farmers returning from hunting the species of antelope called *hartebeest*, roused a leopard in a mountain ravine and immediately gave chase to him. The animal at first endeavoured to escape by clambering up a precipice; but, being hotly pursued, and wounded by a musket-ball, he turned upon the hunters with

frantie ferocity, and, springing upon the man who had fired at him, dragged him from his horse, biting him at the same time on his shoulder, and tearing one of his cheeks severely with his claws. The other hunter, seeing the danger of his comrade, leaped from his horse and fired, with the intention of shooting the leopard through the head; but, whether from trepidation, the fear of wounding his friend, or the quick motions of the beast, he missed his aim. Abandoning his prostrate foe, the leopard darted with redoubled fury upon his second antagonist; and so fierce and sudden was the onset, that, before the boor could stab him with his hunting knife, the savage beast struck him on the head with his claw and tore the scalp over his eyes. In this frightful condition the hunter grappled with the leopard; and, before the man who had been first attacked could start upon his feet and seize his gun, they were rolling one over

the other down a steep bank. Having reloaded he rushed forward; but, by this time, the leopard had seized the unfortunate man by the throat, and mangled him dreadfully. His comrade had only the melancholy satisfaction of dispatching the savage beast, already exhausted by loss of blood, from several deep wounds inflicted by the knife of his expiring companion.

THE LYNX.

The lynx, which is an inhabitant both of the Old and New World, differs considerably from every other animal of the cat kind. Its distinguishing characteristic is the length and erect position of the ears, which are tipped with a tuft of long black hair; a circumstance that has procured it in Hindostan the name of *seahgosh*, or, black ear. The length of the

body is upwards of four feet, and that of the tail not more than six inches. Its general colour is reddish grey, slightly spotted with black, and white beneath; the tail is black at the tip. The legs and feet are thick and strong, and the eyes of a pale yellow. The fur of this animal is highly valued for its warmth and softness. Considerable quantities of skins are imported from the northern parts of Europe and Ameriea, and the farther north the animals are taken, the more beautiful is their fur, being whiter, and the spots more distinct. The Hudson's Bay Company alone has imported in one year not fewer than nine thousand skins.

The lynx hunts for its prey like the other individuals of the cat family. In this pursuit it climbs to the tops of the highest trees; and neither the weasel, the ermine, nor the squirrel can escape it. There, too, it watches for the fallow-deer, the hare, and other animals; darting down

Puma

Racoon

London. Pub.d as the Act directs. by J. Earrow St.Pauls Church Y.d Dec.r 1833.

from among the branches where it lies concealed, seizing them by the throat, and sucking their blood: after which it leaves them, and goes in quest of fresh game. It is consequently a very destructive animal, not easily satisfied with carnage, and sometimes makes great havoc among flocks. When attacked by a dog, it will throw itself down upon its back, and make so desperate a defence with its claws as frequently to repel the assailant.

In Hindostan the lynx is trained to the pursuit of jackals, foxes, and birds.

THE PUMA.

The puma, or couguar, is a large species of the genus *Felis*, a native of South America, to which the name of lion was originally but improperly applied. It has a much greater resemblance to the panther tribe. Its body is

long, and supported by legs of great strength, and of a bulk disproportionate to the trunk. Its countenance, like that of the wild cat of Europe, is cunning, cruel, and unsteady; its action abrupt; its gait restless; its eye insidious and timid. It is nevertheless a beautiful animal, and perhaps a finer specimen was never brought to this country than that which inhabits the Zoological Gardens, which appears quite mild and playful, sleeping the greater part of the day, but sometimes rising, when interrupted by a stranger, and kicking about a little ball in its cage. Its fur is of a rich, silvery, fawn colour on the head, back, tail, and legs; and in this unity of colour and the absence of spots its fancied resemblance to the lion no doubt originated. This animal is about five feet long from the nose to the insertion of the tail, which is about two feet more, of uniform thickness, and without tuft at the end. Under the throat, on the breast,

inside the legs, and under the belly, the fur is white, and tolerably thick. The eye is a greenish yellow, and, when his attention is strongly excited, it is very large and animated.

The puma, in his wild state, is very fierce and destructive. In the vast forests of South America, he is said to hunt all the smaller quadrupeds indiscriminately; but domestic cattle, especially oxen and pigs, are his favourite prey. He will swim rivers, and penetrate into villages, at night, to attack these animals in their enclosures; and, when closely pressed, will plunge into rapid torrents, with a hog or a young calf in its mouth. But this is not the general practice of the puma, who prefers stratagem to open force. He will, for instance, await the approach of the moose or other deer, crouching among the lower branches of tall trees, on the banks of rivers or the margins of ravines, and thence leap or rather drop upon his victim, fastening upon

its throat, and never quitting it till he has glutted his ravenous thirst for blood. In the southernmost of the United States, the puma is not uncommon; but there his ferocity and energy are much less formidable than in the Pampas of Buenos Ayres, or on the burning shores of the Amazons.

Even there, however, it appears that the puma shows an instinctive fear of man. Captain Head, in his "Journey across the Pampas," furnishes the following illustrative anecdote, on the authority of the individual to whom the circumstance happened:—"He was trying to shoot some wild ducks, and, in order to approach them unperceived, he put the corner of his poncho [a kind of blanket worn by way of cloak] over his head, and, crawling along the ground upon his hands and knees, the poncho not only covered his body, but trailed along the ground behind him. As he was thus creeping by a large bush of reeds,

he heard a loud sudden noise, between a bark and a roar: he felt something heavy strike his fect, and, instantly jumping up, he saw, to his astonishment, a large lion [as the puma is erroneously called in South America] actually standing on his poncho; and perhaps the animal was equally astonished to find himself in the immediate presence of so athletic a man. The man told me he was unwilling to fire, as his gun was loaded with very small shot; he therefore remained motionless, the lion standing on his poncho for many seconds: at last the creature turned his head, and, walking very slowly away about ten yards, he stopped and turned again. The man still maintained his ground, upon which the lion tacitly acknowledged his supremacy, and walked off."

The puma has been frequently tamed. Azara has left some interesting particulars of the fondness shown by one which belonged to

him: and the good people of London had, a few years since, opportunities of witnessing the persevering attachment with which a puma, or, as he was miscalled, a lion, belonging to the late Mr. Kean, followed that extraordinary tragedian.

THE RACOON.

The racoon, which belongs to the bear family, is a native of North America and several of the West India islands. It is about two feet in length, and that of the tail is about one foot. Its colour is gray. The head is shaped somewhat like that of a fox. The face is white; a ring of black surrounds the eyes, from which a dusky stripe runs along the nose. The eyes are large, the ears short, and the upper jaw projects beyond the lower. The tail is very bushy, and marked with black rings. The back is somewhat arched; the

fore-legs are shorter than the others; the feet dusky, having five toes with very sharp claws.

The racoon is said to inhabit hollow trees. In Jamaica it comes down from the mountains in such numbers as to make great havoc among the sugar-canes, of which these animals are extremely fond. In one night's incursion they will frequently do incredible mischief. They also eat maize and various sorts of fruits, and partly subsist on birds and their eggs. When near the sea-shore they live much on shell-fish, especially oysters. We are told that they will watch the opening of the shell, and dexterously put in their paw and scoop out the fish. They likewise feed on crabs. Brickell relates that the racoon will stand on the side of a swamp, and drop its tail into the water. The crabs, mistaking it for food, lay hold of it; and the racoon, feeling them pinch, pulls them by a sudden jerk out of the water. Taking them to a little

distance, he devours them, being careful to lay hold of them in such a manner as not to suffer from their nippers. The racoon preys also upon a kind of land-crab, which is found in North Carolina in holes in the sand, and which he drags with one of his fore-paws from their retreats.

The racoon feeds chiefly by night, sleeping during the greatest part of the day. He is an active, sprightly animal; his extremely sharp claws enable him to climb trees with the greatest facility, and he ventures even to the extremities of the branches. He washes his face with his feet like a cat.

The racoon, when tamed, is good-natured and sportive, but busy and inquisitive as a monkey. It examines every thing with its paws, and uses them as hands to lay hold of whatever is given to it, and to lift food to its mouth. It sits up to eat, and is extremely fond of sweet things, but still more of strong

liquors, with which, when it has an opportunity, it will get completely intoxicated. It has all the cunning of the fox, is very destructive to poultry, and will eat all sorts of grain, fruits, and roots. It delights in hunting spiders, devours all kinds of insects, and when allowed the range of a garden, will eat grasshoppers, snails, and worms. It has a peculiar habit of dipping into water every thing that it intends to eat: indeed it will seldom taste bread until it is well soaked. It is familiar and caressing, and leaps upon those whom it is fond of.

One of these animals, domesticated by a French gentleman, is represented to have shown a strong recollection of ill usage, which he never could be brought to forgive. A servant one day gave him several lashes with a whip, and never afterwards could he effect a reconciliation with the racoon. At the sight of the man, the creature always exhibited

symptoms of rage, and endeavoured to spring at him, uttering the most doleful cries, and refusing even his most favourite food till the object of his aversion quitted the room. He appeared to dislike noise, was always irritated by the crying of children, and would frequently inflict severe punishment on a little dog to which he was much attached when he barked too loud.

THE BLACK BEAR.

The black or brown bear is a native of almost all the northern countries of Europe and Asia, and is said to be found even in some of the Indian islands, particularly Ceylon. The general appearance of this animal is extremely clumsy; his body thick, with abrupt tail, his legs very strong, his head round, and his neck short. He is covered with long

MEXICAN PUMA.

thick fur, the prevailing colour of which is a blackish brown; but there is a considerable variety of colour in different individuals of this species, according to the countries which they inhabit. The variety called the American bear, which is spread over the northern parts of the New World, is of smaller size, black, with rusty cheeks and throat.

The bear is a wild, solitary, and ferocious animal: he fixes his abode in the most unfrequented deserts, and makes his den among the most inaccessible precipices in the mountains. For this purpose he commonly seeks out some natural cavern, or a large hollow tree, which it is not difficult to find in the immense forests of the northern regions. Hither he retires about the end of autumn, when he is generally very fat, and here he remains during the winter, in a state of total inactivity and abstinence from food; not torpid, like some other animals, but subsisting

apparently on the superabundant fat and flesh which he had gained during the summer, without feeling the calls of hunger until his bulk is considerably reduced.

At length, on the return of spring, the bear again sallies forth from his retreat, lean and almost famished. He then ransacks every place for food, climbing trees and devouring the fruit. He ascends with surprising agility, with one paw holding fast by the branches, and with the other gathering the fruit. He is also remarkably fond of honey, which he seeks with great cunning and avidity, encountering any difficulties to obtain it.

The brown bear of the north of Europe possesses prodigious strength. Lloyd, in his "Field Sports of the North," says that "he walks with facility on his hind legs, and in that position can bear the heaviest burdens." Neilson, a Swede, relates that "a bear has been seen walking on his hinder legs along a

small tree lying across a river, carrying a dead horse in his fore-paws."

The black bears are remarkably attached to each other. Thus hunters dare not fire at a young bear, if the dam is on the spot; for, if the cub should happen to be killed, she becomes so enraged that, if she can only obtain a sight of the offender, she is sure to avenge herself or perish in the attempt. If, on the other hand, the mother should be shot, the cub will remain by her side long after she is dead, exhibiting the most poignant affliction. This animal seldom uses his teeth as weapons of defence, but generally strikes his adversary very forcibly with his fore-paws like a cat; and, if possible, he seizes him between his paws, and presses him so closely to his breast as almost instantly to suffocate him.

In the countries frequented by bears many curious contrivances are resorted to for destroying them. In some parts of Siberia, a

smooth, solid, and very sharp-pointed post is fixed in the ground, rising about a foot above the surfaee, at the bottom of a pit dug for the purpose. The pit is earcfully eovered with sods, and a small rope, with an elastic bugbear, is stretehed aeross the traek of the animal. As soon as thc bear touches the rope the wooden bugbear starts loose, and the affrighted beast, attempting to eseapc by flight, falls upon the spike in the pit with such force that he is killed.

By another method still more ingenious, the inhabitants of the mountains make this formidable animal bccome his own destroyer. They fasten a very heavy bloek to a rope, terminating at the other end in a loop. This is laid near a steep precipice, in the path which the bear is aeeustomcd to take. On getting his neck into the noose, and finding that he eannot proeeed for the clog, he takes it up in a rage, and to free himself from it throws

it down the precipice: it naturally pulls the animal after it, and he is of course killed by the fall. Should this, however, chance not to be the case, he drags the block up again and repeats his efforts to disengage himself, with increasing fury, till he sinks exhausted to the ground, or terminates his life by a decisive plunge.

Another mode of destroying the bear in Russia is founded on his well-known partiality for honey. The wild bees there make their abodes in hollow trees. To a tree of this kind the people hang a heavy log of wood tied to the end of a long rope. When the unwieldly creature climbs up to get at the hive, he finds himself interrupted by this log; he shoves it away, and immediately attempts to pass it; but, returning, it hits him such a blow, that in a rage he flings it from him with still greater force, which makes it return with increased violence upon himself: and

thus he procceds till he is either killed or knocked down from the tree.

In somc parts of the north, a single individual will venture to attack a bear in the open plains without any other weapon than a stiletto, pointed at both ends and fastened to a thong, and a sharp knife. The thong he wraps about his right arm up to the elbow, and, taking his stilctto in this hand, and the knife in his left, he advances towards the animal, which, on his hind legs, awaits the attack. The moment he opens his mouth, the hunter thrusts his hand into his throat with great resolution and address, and places the stiletto across, which not only prevents him from shutting his mouth, but gives him such pain that the bear is incapable of further resistance, and suffers the hunter either to stab him with a knife or to lead him about whithersoever he pleases.

The bears of Kamtschatka, where they are

extremely numerous, are mueh more tame and gentle than their brethren in other parts of the world. In spring they deseend in multitudes from the mountains where they have passed the winter, to the mouths of rivers, which abound in fish. If they find plenty of this kind of food, they eat nothing but the heads, and when they diseover fishermen's nets in the water they will drag them out and empty them of their eontents.

It is related that, when a Kamtsehadale descries a bear, he endeavours while yet at a distanee to coneiliate him by courteous gestures and language. So familiar are the animals in eonsequence, that, when women or girls are gathering roots, herbs, or turf for fuel, surrounded by a troop of bears, they are never disturbed by them in their employment; and if any of the shaggy quadrupeds should approaeh, it is only to eat out of their hands. The have never been known to make the first

attack on a man unless when suddenly roused from sleep.

The gentle disposition of the bears of Kamtschatka has not, however, exempted him from the persecutions of man. Instigated by the great utility of every part of the animal, the Kamtschadale, armed with a spear or club, seeks him in his den, where the peaceful bear gravely takes the faggots brought to him by the hunter, and with them chokes up himself the entrance to his retreat. The mouth of the cavern being thus closed, the hunter makes a hole in the top, and in the greatest security spears his defenceless foe.

Few animals, perhaps, excepting the sheep and the reindeer, are more serviceable to man than the bear to the people of Kamtschatka. Of the skin they make bedding and clothing. The flesh is esteemed a great delicacy, and the fat supplies the place of oil. The intestines, when duly prepared, serve for window-

panes, and also for masks worn by the females to preserve their faces from the sunbeams, which, being reflected from the snow, have the effect of blackening the skin. They moreover acknowledge themselves to be indebted to these animals for their scanty knowledge in physic and surgery, from observing what herbs they have applied to wounds, and what methods they have pursued under any ailment. They admit also that the bears have been their dancing-masters. The bear-dance, as they call it, affords sufficient evidence of this, being a faithful representation of every gesture and attitude of the sluggish and unwieldly animal.

The fine warm fur of the bear is as generally worn by persons of the higher classes in Russia as by the half-savage Kamtschadale. A light black bear-skin is one of the most costly articles of the winter wardrobe of a man of fashion at Moscow and Petersburg.

The cruel practice of baiting bears with dogs was a favourite public diversion of our forefathers, which the progress of refinement has happily banished from the British islands. Another species of cruelty, however, still subsists among us. Most of our readers must have observed the awkward movements of those animals that are exhibited in our streets, and have been taught to walk upright, to hold a pole in their paws, to imitate dancing, and to perform other tricks for the entertainment of the multitude: but few of them, probably, are aware of the barbarities exercised on the bear in training him for this purpose. His eyes are put out; a ring is inserted in the cartilage of the nose to lead him by; he is starved into submission to the will of his savage keepers; and, by having his feet placed on hot plates of iron, he is taught to regulate his motions to the sound of the flageolet and other instruments. Knowing the fact, what

WHITE BEAR

person possessing the least sensibility would countenanee or eneourage sueh exhibitions! Withhold the profit derived from them, and they must eease of themselves.

THE WHITE BEAR.

Of all the varieties of the bear, the white or polar bear is the most extraordinary, and in many respeets the most formidable, whether we consider his prodigious size and strength, his dauntless eourage, or his insatiable appetite.

The polar bear is always white, or nearly so. His oval-shaped, flattened, and otter-like head, and his enormous paws, the former evidently adapted to his aquatie habits, the latter to his long journeys over yielding snows, distinguish this monareh of the ieebergs and sea shores of the north, from his brother of the

inland forests. He is usually from four to five feet high, and from seven to eight feet long, but sometimes grows to be twelve or thirteen feet in length, and to weigh one thousand five hundred pounds. The skins of two enormous white bears killed by Barentz, measured, the one twelve, and the other thirteen feet.

After clearing the barren islands to which he resorts of the foxes and hares, and the coasts of the wolves and the common seal, this animal begins to traverse the vast plains of polar ice in quest of prey. When his food here fails, as soon as he has reached the open sea he commits himself to its floating icebergs. Enormous masses of his domain gradually detach themselves around him, and tumble from a height of two or three hundred feet into the sea, with the roaring of thunder, and a commotion sufficient to agitate even that boisterous ocean. He keeps his post so long as he

can maintain it, then commits himself to the waves, swimming for leagues, until he either reaches another shore or another iceberg, or sinks exhausted by famine and fatigue. Near the east coast of Greenland, according to Captain Scoresby, the polar bears have been seen on the ice in such numbers as to look like flocks of sheep on a common.

The white bears, when in quest of prey, will often attack the arctic walrus, or sea-horse, which makes an obstinate defence with its long tusks, and sometimes proves victorious. They are seen in droves in Greenland, allured by the smell of seal's flesh, and sometimes they will surround the dwellings of the natives and attempt to break in. The smoke of burnt feathers is said to be the most effective means of repelling the invaders.

White bears are sometimes found in Iceland, whither they are supposed to float upon the ice from the opposite coast of Greenland,

Hungry with the voyage, they scruple not to attack man himself; but Horrebow relates that the natives are always able to escape their fury by throwing down something to amuse them. "A glove," he says, "is very proper for this purpose; for the bear will not stir till he has turned every finger of it inside out; and, as these animals are not very dexterous with their paws, this operation takes up some time, which affords the man opportunity to make off."

The polar bear frequently displays tremendous fierceness. Barentz, in his voyage in search of a north-west passage to China, had fatal evidence of the ferocity of these animals in Nova Zembla, where they attacked his men, seizing them in their mouths, carrying them off with the utmost ease, and devouring them even in sight of their comrades.

Bewick relates a remarkable instance of the ferocity of the arctic bear. The crew of

a boat belonging to a whaler fired at an animal of this species at a little distance and wounded him. The bear immcdiately set up a most hideous howl, and ran along the ice towards the boat. Before he rcached it he was hit by a second shot, which served only to increase his fury. Hc soon swam to the boat, and in attempting to get on board placed one of his fore-feet on the gunwalc: but one of the crew, having a hatchet in his hand, cut it off. Still the animal continued to swim after them till they reached the ship. Several shots were then fired at him and took effect: but on arriving at the ship he immediately scrambled upon deck; and the crew having fled to the shrouds, he was pursuing them thither, when another shot laid him dead upon the deck.

Captain Scoresby mentions that a sailor engaged in thc whale fishery, with a handspike attacked a polar bear which was prowling ncar

the ship. The animal immediately disarmed his antagonist, and, seizing him by the back carried him off, his comrades not perceiving his unfortunate situation till the bear was too far for pursuit.

Another sailor, having one day drunk too freely of rum, observed a bear of this kind lurking about the same ship. Arming himself with a whale lance, after a fatiguing journey of half a league over rugged hummocks of ice, he found himself within a few yards of his formidable enemy, which, to his surprise, undauntedly faced him. His courage being by this time somewhat cooled, he presented his lance and stopped. The bear also stood still, while the sailor, fearing the ridicule of his companions, scarcely dared to retreat. His antagonist began resolutely to advance; and on his near approach the sailor fairly turned about and fled. Encouraged by his flight, the bear pursued and gained rapidly upon the

man, who dropped the lance: this attracted the attention of the animal, which stopped, pawed, and bit it, and then resumed the chase. The sailor, sceing the effect produced by the lance, successively dropped, first one mitten, then the other, and lastly his hat, which his pursuer tore in pieces betwcen his teeth and his paws; yct, even thus loitering, he would no doubt soon have overtaken and dcstroycd the incautious seaman, but for the prompt assistance of the ship's crew, who, observing the danger of their comrade, went out to his rescue. The bear, perceiving that his enemies were too numerous, effected what Captain Scoresby calls an honourable retreat.

There is a fine specimen of this animal in the gardens of the Zoological Society, which proves that his native ferocity may be in a great measure overcome by kind usage and patient attention.

The sagacity of the polar bear is well

known to the whale-fishers. They find the greatest difficulty in entrapping him, although he fearlessly approaches their vessels. The captain of a whaler, being anxious to take one of these animals without wounding the skin, laid the noose of a rope in the snow, placing within it a piece of kreng, or burning meat. A bear, ranging the neighbouring ice, was soon enticed to the spot by the smell of the meat. Perceiving the bait, he approached and seized it in his mouth; but at the same moment his foot being, by a jerk of the rope, entangled in the noose, he pushed it off with the other paw, and deliberately retired. Having eaten the meat, which he carried away with him, he returned. The noose being then replaced, with another piece of kreng, he pushed the rope aside, and again walked off triumphantly with the meat. A third time the noose was laid; but, excited to caution by the evident observation of the bear,

the sailors buried the rope under the snow, and laid the bait in a deep hole dug in the centre. The bear once more approached, and the sailors were assured of success ; but Bruin, more sagacious than they expected, after snuffing about the place for a few moments, scraped the snow away with his paw, threw aside the rope, and again escaped unhurt with his prize.

The female white bear displays a tenderness for her young that might shame many a human parent. An affecting instance of this maternal attachment is recorded in the voyage of discovery towards the North Pole by the first Lord Mulgrave. While his ship, the Carcase frigate, lay locked in the ice, early one morning the man at the mast-head gave notice that three bears were rapidly approaching the vessel. They had no doubt been attracted by scent of some sea-horse blubber, which the crew had set on fire: drawing out of the flames some of the flesh that was yet

unconsumed, they ate it voraciously. They proved to be a she bear and her two cubs. The crew threw from the ship large lumps of sea-horse flesh, which they had still left, on the ice, towards their visiters: these the old bear fetched singly; laying each lump as she brought it before her cubs, and dividing it, she gave to each a share, reserving only a small portion for herself. As she was fetching away the last piece, the men levelled their muskets at the cubs, killed them both, and wounded the dam, but not mortally, in her retreat. It would have drawn tears of pity from any but the most unfeeling persons, to have observed the affectionate concern expressed by this poor beast in the dying moments of her young. Though herself dreadfully wounded, and but just able to crawl to the spot where they lay, she carried to them the lump of flesh which she had fetched away, as she had before done the others; tore it in pieces and

laid it before them: and when she saw that they did not eat, she laid her paws first on one and then on the other, and endeavoured to raise them up, moaning most pitifully all the while. When she found that she could not stir them, she went off, and, having got to some distance, looked back and again moaned; and this not availing her to entice them away, she returned, and smelling round them, began to lick their wounds. She went off a second time, and, having crawled a few paces as before, looked again behind her, and for some time stood moaning. Still, her cubs not rising to follow her, she returned to them again, and with signs of inexpressible fondness went round one, and then round the other, pawing them and moaning. At last, finding that they were lifeless, she raised herhead toward the ship, uttering a growl of despair, which was returned with a volley of musket-balls. She fell between her cubs, and died licking their wounds.

The white bear sometimes becomes so fat that a hundred weight of fat has been taken from a single beast. The flesh is said to be coarse. The skin is valued for coverings of various kinds, and the split tendons make excellent thread.

In the British Museum there is a stuffed specimen of the white bear considerably larger than that in the Zoological Gardens.

THE BADGER.

This member of the bear family is an animal of a very clumsy make, having a thick neck and body, and very short legs. He is about two feet and a half long from nose to tail, and the tail itself seldom exceeds six inches. His body is covered with coarse hair like bristles, of a dirty yellowish white next to the root, black in the middle, and gray at the

tips. The badger differs from most animals in being of a darker colour on the belly than on the back. He possesses extraordinary strength, especially in the legs and feet, which are formed for burrowing in the earth.

The badger inhabits all the temperate countries of Europe and Asia. He makes his habitation under ground, and is so cleanly that, if his retreat be defiled by the fox or any other beast, he quits it for another. He seldom leaves his hole in the day-time, feeding only by night. His food consists chiefly of the smaller quadrupeds, as rabbits, or birds; but Pennant will scarcely allow him to be carnivorous. He is also said to be extremely fond of honey. He sleeps much during winter, which he passes, like the bear, in a half torpid state.

Scarcely any animal has suffered more from vulgar prejudices than the badger. Harmless in his nature, he seems to have had the character of ferocity attributed to him merely

beeause he possesses great strength, and is furnished with formidable teeth, as if he were destined to live by rapine: though, in fact, he is a perfectly inoffensive animal. If Nature has denied the badger the speed requisite for escaping enemies, she has supplied him with such weapons of defence that searcely any creature will dare to attaek him. Few animals defends themselves better, or bite harder, when pursued. He soon eomes to bay, and fights with great obstinacy; but, though he is tenacious of life, yet to him, as to the otter, a slight blow on the snout is mortal. He is hunted with terriers, and his obstinate defence affords great diversion to those who are thoughtless and unfeeling enough to take pleasure in the torments of a harmless creature.

The badger is not known to do any further misehief to mankind than in scratching up the ground in seareh of food, which is always done at night. This eireumstanee has suggested

one of the modes usually practised for taking this animal. When his den is discovered, and it is ascertained that he is abroad in the night, a sack is fastened to the mouth of it. One person remains near the hole to watch, while another, with a dog, beats round the fields to drive him home. As soon as the man at the hole hears that a badger has run in for refuge, he seizes the mouth of the sack, ties it up, and carries it off. Sometimes the badgers are caught in steel traps placed in their haunts.

The flesh of the badger, although not esteemed a delicacy, is neither unwholesome nor unpalatable: the hind quarters, especially when made into hams and well cured, are deemed by some not inferior to bacon. It is most valued for its skin, which is converted into coarse furs, horse-trappings, pistol furniture, and other articles; while the hair is made into brushes, used by painters to soften their shades.

THE OPOSSUM.

THE opossum belongs to a curious tribe of animals, which first became known to naturalists on the discovery of America, where only most of the species are found; though some of them are natives of the Oriental and Australasian islands. They are principally distinguished by a remarkable provision which Nature has made for the safety of their young, consisting in a pouch or bag, formed by a fold of the skin. Into this pouch the young are received soon after their birth, and they are nursed within it, till they are able to shift for themselves.

The species called the Virginian opossum is of about the size of a cat, but it appears to be of a thicker form, owing to the length and erect position of the hair. It is of a yellowish gray

Opossum.

Badger.

Ichneumon.

Ermine.

London Pub.ed as the Act directs. by J Harris. St Pauls Church Yd Dec.r 1833

colour, with naked tail, and black, bare, rounded ears, edged with white. The head, in its general figure, resembles that of the fox; the mouth is very wide, and armed with sharp teeth. The legs are short, and all the toes, excepting the thumbs of the hinder feet, are furnished with sharp claws.

The opossum, when it is on the ground, appears to be a very helpless animal. The structure of its feet, or rather hands, for they are not unlike those of a monkey, prevents it from either walking or running very fast; but, in compensation for this apparent defect, it can climb trees with the utmost ease and expedition; and, by the aid of its prehensile tail, which is about a foot long, it is more active in this situation than most quadrupeds. It hunts eagerly after birds and their nests, and is very destructive to poultry, sucking their blood, without eating their flesh. It also eats roots and wild fruits.

When pursued and overtaken, this animal will feign itself dead till the danger is over; and we are told that if a female is taken in this state, with her young in her pouch, no torments can compel her to give them up. So tenacious is the opossum of life, that it cannot be killed without great difficulty. Hence the saying in North Carolina, that "if the cat has nine lives, the opossum has nineteen." Dr. Brickell relates that he has seen these animals, after the scull had been shattered to pieces, and they appeared to be absolutely lifeless, crawling about again in the course of a few hours.

The opossum takes the most tender care of her young, which she carries every where about with her in the abdominal pouch, where they are secure from the vicissitudes of the weather. As her offspring increase in size, she lets them out from time to time, especially in rainy weather, in order to wash them, after

which she wipes them dry with her paws, licks them, and puts them again into her bag. In fine weather she will place them in the sunshine, dance about with them, teach them to walk, and amuse them with a thousand antics. As soon as they are strong enough to seek provisions for themselves, she drives them from her, as if to intimate that they are no longer to depend on her for support; but still she follows them at a distance, and watches lest any harm should befal them. If the slightest noise causes her to apprehend danger, she runs to them, receives them into her bag, and carries them off to a place of safety. It is said that whenever the young opossums are surprised too suddenly to retreat into the pouch, they will adhere to the tail of the parent, and thus endeavour to escape with her.

THE ERMINE.

The ermine, or stoat, so nearly resembles the weasel, that some naturalists have confounded the two species: but it differs from the weasel in size, being generally nine or ten inches long, while the weasel rarely exceeds six or seven. In summer it is, like the weasel, of a lightish brown colour, but in winter becomes perfectly white, excepting the end of the tail, which is black, and invariably retains that colour.

This little animal, which abounds in the northernmost parts of Europe and Asia, is celebrated for the softness, closeness, and warmth of its beautifully white fur, which is a valuable article of commerce. In Siberia and Kamtschatka it is taken in traps baited with flesh. It preys, like the weasel, on all

sorts of small quadrupeds and birds, and in all its habits it is exactly like the animal just mentioned. It begins to change its summer dress in November, and resumes it in March.

The stoat is sometimes found of a white colour in Great Britain, but not often, and it is then called a white weasel.

THE ICHNEUMON.

The ichneumon is one of the most remarkable of the numerous species of the weasel tribe. There are two distinct varieties of it, which differ chiefly in size, the larger generally measuring about forty inches from the nose to the tip of the tail, while the smaller scarcely attains two-thirds of that length. The former has also the tail slightly tufted at the end. In other respects they bear a near

resemblance to each other, and in general conformation are like the weasel. They are commonly of a pale reddish gray colour, each hair, which is hard and coarse, being mottled with brown so as to give a speckled appearance to the whole body. The eyes are of a bright red colour; the ears rounded, and almost naked; the snout long and slender; the body rather thicker than in most other species of the weasel family; and the claws long and sharp.

The larger ichneumon is found in various parts of Africa, but chiefly in Egypt, where the services rendered by it in destroying the eggs and young of the crocodile caused it to be worshipped as an emanation of the Deity by the ancient Egyptians, who gave it the name of Pharaoh's rat. The smaller ichneumon seems to be confined to the East Indies. In their wild state these animals frequent the banks of rivers, in which they swim and dive

occasionally, being able to continue under water for a considerable time. When going to sleep, they roll themselves up like a ball, and are not easily awakened. Their voice is very soft, resembling a murmur; but they are said not to exert it unless irritated.

Both varieties of the ichneumon, but especially the Egyptian, are deadly enemies to serpents, rats, and other noxious animals; and the Indian variety attacks with great eagerness that formidable reptile the cobra-di-capello. Hence, being easily tamed, the ichneumon is kept as a domesticated animal, both in Egypt and India. Possessing the strength and agility of the cat, with a greater propensity to carnage, it will glide along the ground like a serpent, dart with the velocity of an arrow, and seize its object with infallible certainty, griping the most venomous serpents by the throat in such a manner as to secure itself from injury. It sits up like a

squirrel, lifting its food to its mouth with its fore-feet, and catching any thing that is thrown to it. Being fond of poultry, it will sometimes feign itself dead till they come within its reach. But the most remarkable of its instincts, and the most serviceable to man, is that which impels it to seek and dig out of the sand the eggs of the crocodile, which it destroys, and to intercept and kill the young of that formidable animal as soon as they have left the shell, and before they have been able to reach the water. We are assured that, as the jaws of the ichneumon do not open wide enough for him to grasp the crocodile's eggs between them, he endeavours to break them by throwing them up and letting them fall, or by rolling them backward and forward on the ground. If he finds a stone, he will place himself with his back towards it, stride with his hind legs, and, holding the egg in his fore-paws, throw it under his belly against

the stone, and repeat this operation till he has broken the shell. Ancient writers have even gone so far as to assert that, when the ichneumon finds a crocodile asleep on the shore, he will boldly enter the mouth of the enormous animal, kill his enemy by devouring his entrails, and then eat his way out of the belly of the monster. It is scarcely necessary to contradict so palpable a fable.

THE CIVET.

This is the largest species of the weasel kind, measuring about two feet from nose to tail, and the tail about fourteen inches. The ground colour of the body is a yellowish gray, marked with large dusky spots, disposed in rows on each side, and sometimes intermixed with a rusty tinge. The hair, which stands up along the top of the back like a sort of

mane, is coarse; the ears are short and rounded; the eyes blue; the tip of the nose, sides of the face, lips, chin, breast, and feet black; the rest of the face and part of the sides of the neck yellowish white, with three black stripes running from each ear to the throat and shoulders. The tail is generally black, but sometimes marked with pale spots near the base.

The civet is a native of several parts of Africa and India. It feeds chiefly on small quadrupeds and birds, which it takes by surprise; like the cat, sometimes committing depredations among poultry, when it can steal into a farm-yard. But, though naturally wild and somewhat ferocious, it is capable of being tamed and rendered tolerably familiar. It is said to be extremely voracious, and will sometimes roll itself for a minute or two on meat that is given to it before it eats it.

This animal is remarkable for the produc-

tion of a drug called civet, which is sometimes erroneously confounded with musk. It is a secretion formed in a small pouch under the tail, which the animal empties spontaneously. The Dutch keep many of them alive at Amsterdam for the purpose of obtaining this drug. Putting the creature into a wooden cage so narrow that it cannot turn round, they empty the pouch by means of a small spoon, or spatula, twice or thrice a week. The civet thus procured, being unadulterated, is held in higher estimation than that from India and the Levant. It is so powerful as to be almost insupportable, when a person is shut up in the same room with the animal; but the smell of a small quantity is more agreeable than musk, to which it bears some resemblance.

THE OTTER.

The otter seems to form the first step in the gradation between land and aquatic animals, resembling the former in external appearance and internal conformation, and the latter in its ability to swim, being furnished with membranes between the toes for that purpose, as also in its general habits and mode of subsistence. Hence the animals of this kind are denominated amphibious, as being inhabitants of two different elements.

The usual length of the otter is about two feet, from the tip of the nose to the tail, the tail itself being about sixteen inches long, broad near the body, and gradually tapering to the point. The head and nose are broad and flat; the mouth is formed like that of a fish, and furnished at the corners with long

whiskers; the eyes are small and very brilliant; the legs remarkably short and muscular, but the joints extremely supple. The fur is of a deep brown colour, with two small spots on each side of the nose, and another under the chin.

The otter is an inhabitant of almost all the temperate countries of the world, and is found in some of the tropical regions. It shows great sagacity in forming its habitation. It burrows under ground in the bank of some river or lake, and always makes the entrance of its hole under water, working upwards to the surface of the earth; and, before it reaches the top, it makes several holts or lodges, that in case of high floods it may have a retreat, for no animal seems more desirous of lying dry. It then makes a small aperture for the admission of air; and, the more effectually to conceal its retreat, it contrives to make this air-hole in the midst of some thick bush.

Though the otter will sometimes attack poultry and the smaller quadrupeds, its principal food consists of fish; but it is very nice, and will only eat such as are perfectly fresh. It swims against the stream in rivers, and may frequently be seen in concert with a companion hunting the salmon. When it has caught a fish, it devours it as far as the vent; but, unless very hard pressed by hunger, it leaves all the rest. It is asserted that otters will even go out to sea to a considerable distance in quest of this their favourite food, and that they have been seen about the Orkneys, hunting sea-fish, especially cod.

Otters are often taken in traps, and the hunting of these animals is with some a particular diversion. The old otters will defend themselves against the dogs to the last extremity: they bite keenly, never loosing their hold but with life, or making complaint for wounds however severe.

When taken young, the otter may be easily tamed and taught to catch fish for its master. The usual way of training it is, first to make it fetch and carry like a dog: a truss stuffed with wool in the shape of a fish is then given to it; this it is accustomed to take in its mouth and drop at command. It is then taught to fetch real dead fish, when thrown into the water, and thus by degrees made to catch living fish.

Bewick relates that a person near Wooler, in Northumberland, had a tame otter, which followed him wherever he went. He frequently took it to the river, and it was very useful to him by going into the water and driving trout and other fish into his net. One day, in the absence of its master, it was taken out by his son to fish; but, instead of returning as usual at the accustomed signal, it refused to come, and was lost. The father tried all means to recover it; and, after a

search of several days, being near the place where the animal was lost, he called it by its name, when, to his great joy, it came creeping to his feet, with every demonstration of affection and attachment. It is remarkable that this man's dogs, though accustomed to the sport of otter-hunting, were so far from molesting this individual, that they would not even hurt any of its species when it was in their company.

The otter of Poland, and the more northern countries of Europe, is much smaller than our common otter. Its colour is a dusky brown; and its fur is very valuable, being esteemed next in beauty to that of the sable.

In North America, where the otter is called the minx, it is not more than twenty inches in length; but its fur, of a dark brown colour, is glossy and beautiful. In some parts of that continent, otters are seen at a distance from

any known water, both in woods and in open plains. In winter, if pursued in the woods where the snow is light and deep, they will burrow and make considerable way under it: but they may be easily traced by the motion of the snow above them and overtaken. The Indians kill many of them with clubs; but some of the old ones are so fierce that when closely pressed they will turn and fly at the pursuer. They are said to be very fond of play; and Hearne tells us that one of their favourite pastimes is to get on a high ridge of snow, bend their fore-feet backward, and slide down the side of it, sometimes to the distance of twenty yards.

In the marshes of Guiana otters are very numerous: they herd together near the banks of rivers, and are so fierce that it is not safe to approach them. Those of Cayenne are very large, weighing from ninety to one hundred pounds; they are of a dark brown colour, and their fur is fine, soft, and short.

THE BEAVER.

The aspect of this animal conveys no impression of the extraordinary sagacity which has been attributed to it. The body is about three feet long; and the tail, which distinguishes it from all other quadrupeds, being of an oval form, nearly flat, except on the upper surface, where it is slightly convex, destitute of hair, but covered with scales, like those of a fish, is about a foot in length and three inches broad. Its ears are short, its nose blunt; its fore-feet are small, but the hinder large and strong, with membranes connecting the toes, as in water-fowl. The body is covered with a thick soft fur, which is in general of a deep chesnut colour, but sometimes quite black, white, cream-coloured, and spotted. The cutting teeth of the beaver are remark-

able for their size and strength, which enable it to gnaw down trees of considerable magnitude with incredible facility.

The extraordinary instincts of the beaver, in its natural state, have furnished one of the most attractive subjects of Natural History; but it is now certain that much that is false and exaggerated has found its way into the descriptions of the habits of this animal. This exaggeration may be referred to unavoidable causes. The species are extremely timid and vigilant, and invariably labour in the night-time; hence few persons competent to observe them accurately have had opportunity of doing so. Our information on this subject is chiefly derived from the fur-traders and Indians; ignorant and credulous men, deceiving themselves and deceiving others. The account of the animal recently given by Dr. Godman, Professor of Natural History in the Franklin Institute of Pennsylvania, in the second volume

of his Natural History, is calculated to correct many of those misapprehensions which formerly prevailed rcspecting the beaver. From that source the following particulars are derived.

In a state of nature, the instincts of the beavers are exerted for two principal objects; to secure such a depth of water that it cannot be frozen to the bottom; and to construct huts for their winter habitations.

If the beavers choose for their residence a spot whcre the water is not of sufficient depth, they set about obviating thc inconvenience by building a dam. The materials used in the construction of dams are the trunks and branches of small birch, willow, poplar, mulberry, and other trces. Thcy begin to cut down their timber for building early in the summer, but they do not begin building till the middle or end of August, and their edifices are not finished until the beginning of the cold season. The strength of thcir tecth, and their

perseverance in this work, may be estimated by the age of the trees which they cut down. Dr. Godman saw, on the banks of the Little Miami river, several stumps of trees, five or six inches in diameter, which had evidently been felled by these animals, and they have even been found of the diameter of eight inches. In the neighbourhood of a beaver-dam, the number of trees which have been cut down is truly surprising, and the regularity of the stumps which are left, might lead persons unacquainted with the habits of the animal to believe that the clearing was the effect of human industry.

The trees are cut in such a manner as to fall into the water, and then floated towards the site of the dam and dwellings. Small shrubs cut at a distance from the water are dragged in their teeth to the stream, and towed to the spot. The form of the dam varies according to circumstances. If the

current is very gentle, the dam is carried nearly straight across; but when the stream is rapid, it is uniformly made with a considerable curve, having the convex part opposed to the current. With the trunks and branches of trees they intermingle mud and stones, to give greater security; and, when dams have been long undisturbed and frequently repaired, they acquire great solidity, their resistance to the pressure of water and ice being increased by the willow, birch, and other cuttings, occasionally taking root, and growing up into a regular hedge. The materials used in constructing the dams are secured solely by the branches resting against the bottom, and the subsequent accumulation of mud and stones either by the deposit of the stream or by the industry of the beavers.

Their dwellings are formed of the same materials as the dams, and are very rude, though strong, and adapted to the number of their

inhabitants, rarely consisting of more than four old and six or eight young ones. When building their houses they plaee most of the wood eross-wise, and nearly horizontally, observing no other order than that of leaving a cavity in the middle. Branches whieh projeet inward are eut off with their teeth, and thrown among the rest. The houses are not first built of sticks and then plastered, but all the materials, stieks, mud, and stones, if the latter can be procured, are mixed up together, and this eomposition is employed from the foundation to the summit. The mud is obtained from the banks or bottom of the stream or pond near the door of the hut; the animal always earrying mud and stones by holding them between his fore-paw and his throat. The work is performed entirely by night and with great expedition. When straw or grass is mixed with the mud used in building, it is an aecidental eireumstance, owing to the na-

ture of the spot from which the mud was taken. As soon as any part of the materials is placed where it is intended to remain, they turn round and give it a smart blow with the tail. They strike the same sort of blow upon the surface of the water when they are going to dive.

Late in the autumn, after the frosts have begun, the outside of the hut is covered or plastered with mud. The frost soon renders it almost as hard as stone, effectually excluding their great enemy, the wolverine, during the winter. Their habit of walking frequently over the work during its progress has led to the absurd idea that they use the tail as a trowel. The habit of flapping with the tail, which, unless it be in the act already mentioned, does not appear designed to affect any particular purpose, is retained by the beaver in a state of captivity. The houses, when they have stood for some time and been kept

in repair, become so firm, from the consolidation of the materials, as to require great exertion and the use of the ice-chisel or other iron implements to be broken open. This is a laborious undertaking, for the tops of the houses are generally from four to six feet thick at the apex of the cone; and Hearne relates that he saw one instance in which the crown or roof of the hut was more than eight feet in thickness. The door or hole leading into the beaver-hut is always on the side farthest from the land, and near the foundation of the house, or at a considerable depth under water. This is the only opening into the hut, which is not divided into chambers.

All the beavers of a community do not cooperate in the building of houses for the common use of the whole. Those that are to live together in the same hut assist in its construction; and the only work in which they seem to have a joint interest, and at which they

labour in concert, is the dam, as this is designed to keep a sufficient depth of water around all the habitations.

In situations where the beaver is frequently disturbed and pursued, its social habits are relinquished, and its mode of living changed to suit the nature of circumstances, and this occurs even in different parts of the same rivers. Instead of building dams and houses, it then makes an excavation in the bank of the stream, and adopts the manners of the musk-rat. The beaver displays more sagacity in thus accommodating itself to circumstances than in any other of its actions. So cautious is it to guard against detection, that, were it not for the stumps of the trees which indicate the species of animal by which they have been cut down, its residence in the vicinity would not be suspected. Its excursions for procuring food are made late at night, and, if it passes from one hole to another in the day-

time, it swims so far under water as not to excite the least suspicion of its presenee. On many parts of the Mississipi and Missouri, where the beaver formerly built houses aecording to the mode above deseribed, no sueh works are now to be found, though beavers are still to be trapped in those parts.

These animals have also cxeavations in the adjaeent banks, at rather regular distanees from eaeh other, whieh have been called *washes*. These exeavations are so enlarged within, that the beaver ean raise his head above water in order to breathe without being seen; and, when disturbed at their huts, they immediately make their way under water to their washes.

Beavers feed ehiefly on the bark of the aspen, willow, bireh, poplar, and oeeasionally the alder, but rarely resort to the pine-tribe unless in cases of great emergeney. During the summer season they eolleet a

stock of wood from the trees just mentioned, and place it in the water opposite to the entrance to their houses. They also eat the roots of the yellow-flowering water-lily, which grow at the bottom of lakes, ponds, and rivers, and may be procured at all seasons.

To take the beavers residing on a small river or creek, the Indians find it necessary to stake the stream across to prevent their escape. They then try to ascertain where the vaults or washes in the banks are situated; and it is only practised hunters that can discover them. The hunt takes place in winter, because the fur of the animal is then in the best condition. The hunter, with an ice-chisel fastened to a handle four or five feet in length, strikes against the ice as he goes along the edge of the bank, and the sound produced by the blow informs him when he is opposite to one of those excavations. On discovering one, a hole, sufficient to admit a full-grown beaver

is cut through the ice, and the search is continued, until as many places of retreat as possible have been found. While the most experienced hunters are thus occupied, the others, with the women, are breaking into the beaver-houses. The animals, alarmed at this invasion of their dwellings, take to the water and swim to their retreats in the banks, but their coming is betrayed to the hunters, watching at the holes in the ice, by the motion and discolouration of the water. The entrance is easily closed with stakes, and the beaver, instead of finding shelter in his cave, is made prisoner and destroyed. The hunter then pulls the animal out, if within reach, by his hand, or by a hook fastened to a long handle. Beaver-houses in lakes or other standing waters offer an easier prey to the hunters, as there is no necessity for staking the water across.

The number of beavers killed in the north-

ern parts of America, even at the present time, after the trade in their furs has been carried on for so many years, is very great. In 1820, sixty thousand beaver-skins were sold by the Hudson's Bay Company alone. In all the Atlantic and western States, as far as the middle and upper waters of the Missouri, the animals have been exterminated; in the Hudson's Bay territories they are annually becoming more scarce; so that at no distant period probably the race will be extinguished throughout the whole continent.

In the countries watered by the tributary streams of the Missouri and Mississipi, the Indians take the beavers principally by trapping, being generally supplied with steel-traps by the traders, who do not sell but only lend them, in order to keep the Indians dependent on themselves, and to claim the furs which they may procure. The business of trapping requires great experience and caution, the

senses of the beaver being so keen as to enable him to detect the recent presence of the hunter by the slightest traces. It is necessary that the hands should be washed clean before the trap is handled and baitcd, and that every precaution should be taken to elude the vigilancc of the animal. The bait is prepared from the substance called castor, obtained from the glandulous pouches of the male animal, which sometimes contain from two to thrce ounces.

In winter the beavcr becomes very fat, and its flesh is esteemed by the hunters to be excellent food; but those caught in the summer are lean and unfit for the table. The fur also is of little value in summer; it is only in winter that it is obtained in the state which renders it so desirable for the fur traders.

The young bcavers, like the young of most other animals, are very playful, and whine in a manner closely resembling the cry of a child.

Captain Franklin relates that, one day, a gentleman, long resident in the Hudson's Bay country, espied five young beavers sporting in the water, leaping upon the trunk of a tree, pushing one another off, and playing a thousand antics. He approached softly, under cover of the bushes, and prepared to fire, but, on a nearer approach, he was so struck with the similitude between their gestures and the infantine sports of his own children, that he dropped his gun and left them unmolested.

The motions of the beavers on land are very slow. Though possessing teeth so sharp and strong as to be capable of a stout resistance, they are easily killed, being so timid, that if they happen to meet a man they will squat down and cry like a child.

The beaver may be completely domesticated. Major Roderfort, of New York, informed Professor Kalm, that he had a tame beaver above half a year in his house, where he went about

loose like a dog. He fed him with bread and sometimes fish, of which he was very fond. He was supplied with as much water as he required in a bowl. All the rags and soft things he could meet with he dragged into a corner where he was accustomed to sleep, and made a bed of them. The cat, having kittens, took possession of his bed; he did not disturb her; and when she went out he would often take up the kitten that was preserved between his fore-paws, hold it to his breast as if to warm it, and seemingly doat upon it: as soon as the cat returned he always gave her back the kitten. Sometimes he grumbled, but never did any harm, nor attempted to bite.

The skin of the beaver has hair of two kinds; the lower, close to the hide, is short, and as fine as down; the upper, which grows more sparingly, is both thicker and longer. The latter is of no value, but the fine hair is wrought into hats, and other articles of dress.

THE PORCUPINE.

The porcupine is a native of Africa, Southern Asia, and the Asiatic islands, and it is also found wild in some of the warmer countries of Europe, as Spain, Sicily, and Malta.

The usual length of the common porcupine is about two feet and a half from the head to the end of the tail. The upper parts of this animal are furnished with a remarkable kind of defence, being covered with hard, sharp spines, some of which measure from nine to fifteen inches in length; they are variegated with alternate black and white rings, and are cast every year. They are complete quills, which the animal can raise or depress at pleasure; and when he walks they make a rattling noise, especially those about the tail, by striking against one another. The head, belly,

London, Pub.d as the Act directs, by J. Harris, St. Pauls Church Y.d Dec.r 1833.

and legs are covered with strong, dusky bristles, intermixed with softer hairs: these are very long on the top of the head, and curved backward like a ruff or crest. The teeth are very sharp and strong. Bosman, when on the coast of Guinea, put a porcupine into a strong tub, but in the course of the night he ate his way through the staves and escaped.

In its manners the porcupine is very harmless and inoffensive. It is never itself the aggressor: when pursued, it climbs the first tree that it can reach, where it remains till the patience of its enemy is exhausted; but, when it is roused to self-defence, the lion himself dare not attack it. In such cases it generally lies down on one side, and, on the approach of its foe, rises quickly and gores him with the spines of the other. When it meets with serpents, against whom it carries on incessant war, it draws in its head and feet, contracting itself into a ball, and, rolling upon them, kills

them with its bristles, without running any risk itself. According to Le Vaillant, wounds from the quills are dangerous, owing to some pernicious quality which they possess. He tells us that one of his Hottentots, who had received a wound in the leg from a porcupine, was laid up with it for more than six months; and that a gentleman at the Cape was near losing a limb from a similar accident, from which he suffered most severely for above four months, during one of which he was confined to his bed.

When the animal is casting its quills, a circumstance which may have given rise to the notion of its darting them at its enemies, it sometimes shakes them off with such force that they will fly to the distance of some yards, and that the points will become bent by striking against any hard substance.

It inhabits subterranean retreats, which it is said to form into several apartments, leaving

two holes, one for an entrance and the other for escape in case of emergency. It sleeps in the day-time, going abroad chiefly in the night in quest of food, which consists principally of fruit, roots, and vegetables. Though it can endure hunger for a long time, apparently without inconvenience, it always eats voraciously.

If taken young, the porcupine may be easily tamed. The late Sir Ashton Lever had one, which he frequently turned out on the grass behind his house to play with a tame hunting leopard and a Newfoundland dog. As soon as they were let loose, the dog and the leopard would pursue the porcupine, which always endeavoured at first to escape by flight: but, finding this to be impracticable, he would thrust his nose into a corner, making a snorting noise and erecting his spines, with which his pursuers pricked their noses, till they at length began to quarrel with one another, and thus afforded him an opportunity of escaping.

THE MARMOT.

This animal has been classed by some naturalists with the rat kind, while others refer it to the family of the hare. In size it approaches much nearer to the former than to the latter genus; but, if we examine its structure, we shall find points of correspondence with both. The head, nose, and lips resemble those of the hare, while the ears, teeth, and claws are like those of the rat.

The marmot is indigenous to both the Old and New World. The Alpine marmot, which is a native of the Alps, the Pyrenees, and some other mountainous tracts of Europe, is rather larger than a rabbit, being about sixteen inches long, exclusively of the tail, which measures about six inches. The head is rather large and flattish, the ears short and hidden

by the fur, which is brownish on the back, and reddish on the belly; and the tail thick and bushy.

These animals delight in high mountain regions, climbing readily and with ease the rocky eminences and fissures. Their retreats are formed with great art and precaution. They do not make a single hole, but a kind of gallery in the form of a Y, each branch of which has an aperture, and both terminate in a spacious apartment, where several of the animals lodge together. Both branches of the Y are inclined; one of them, running under the apartment, and following the declivity of the hill on which these abodes are always made, serves as a drain to carry off all offensive matters; and the other, which rises above the principal apartment, is used for coming in and going out. Their place of abode is well lined with moss or hay, of which they lay up a store during the summer.

The marmots, like the beavers, dwell together, and work in common in the construction of their habitations, where they pass three-fourths of their lives. Thither they retire during rain, or on the approach of danger, never going out but in fine weather, and then to no great distance. One of them stands sentinel on a rock, while the others sport upon the grass or cut it for hay. If the sentinel perceives a man, a dog, an eagle, or any object from which danger may be apprehended, he instantly gives the alarm by a loud whistle, and is himself the last that enters the hole. Having a quick eye, he discovers an enemy at a considerable distance.

The marmot never does the least injury to any other animal. He flees when pursued, and, when apprehensive of danger, whole families quit their dwellings and wander from hill to hill, though they have in consequence new habitations to construct. But when flight

is impossible, they obstinately defend themselves with teeth and claws against the attacks of even men and dogs.

The marmots make no provision for their subsistence during the winter, as if aware that they should not need any. On the approach of that season, they close up the two entrances to their habitation with such solidity that it is easier to break up the earth in any other place. They are then so fat as sometimes to weigh twenty pounds. They remain torpid for seven or eight months, gradually diminishing in bulk, till by the end of winter they become quite meagre. The hunters, who make a business of taking these animals on account both of their flesh and their skins, leave them undisturbed till the weather has become very severe; when they are found asleep in their retreats, rolled up like balls, and covered with hay.

When taken young, the marmot is easily

domesticated. It will walk on its hind legs, sit upright, and lift food to its mouth with its fore-feet. It will dance with a stick between its paws, and perform various antics to please its master. It has a singular antipathy to dogs: but, though able to bite most cruelly, it attacks no one unless first irritated.

THE GRAY SQUIRREL.

In form and manners the gray squirrel very much resembles the common squirrel. It is of about the size of a young rabbit, and, excepting the inside of the limbs, and the under parts of the body, which are white, its colour is an elegant pale gray.

This animal is a native of North America and some of the northernmost parts of Europe. The gray squirrels often change their place of abode, so that sometimes during a whole

London Pubd as the Act directs by J Harris, St Paul's Church Yd Jan.y 1822

winter not one is to be found in a district where there were millions in the preceding year. In their marches, when they come to a lake or river, they will lay hold of a piece of pine or birch bark, which they draw to the edge of the water, mount upon it, and consign themselves to the influence of the wind and waves. They erect their tails, which serve for sails to their precarious barks, often consisting of many thousands: in case of unfavourable weather dreadful havoc is made among the adventurous voyagers, and the wreck enriches the Laplanders, who find the dead bodies washed on shore.

In North America the gray squirrels do great mischief among the plantations, but especially among the maize, climbing up stalks, tearing the ears in pieces, and eating only the sweet kernel in the inside. In this way they will destroy the whole crop of a farmer in a single night. In some of the United States,

therefore, a reward of two-pence a head was given from the public treasury for their destruction. In one year only, about the middle of the last century, Pennsylvania alone paid no less a sum than eight thousand pounds on this account, which shows that in that year nearly a million of these animals must have been destroyed.

The gray squirrel resides chiefly among trees, in the hollows of which it makes its nest with straw, moss, and other materials, feeding on acorns, fir-cones, maize, and various kinds of fruit. It is said to collect a store of provisions for winter, which it deposits in holes that it burrows at the foot of trees and other places. When, sitting on a bough, it perceives a man approaching, it instantly moves its tail backward and forward, and makes a noise with its teeth, to the great annoyance of the sportsman, who frequently loses his game in consequence of the alarm

thus given. It is very difficult to kill these animals, which move about in the trees with such rapidity as to elude the most expert marksman.

It is said that the gray squirrels may be easily tamed, and that in this state they readily associate with other domestic animals. Their flesh is esteemed very delicate, and the skins are employed for making ladies' shoes, and for the facing and lining of cloaks.

THE KANGAROO.

The first voyage of that celebrated navigator, Captain Cook, first made the world acquainted with the existence of this remarkable native of New Holland. It is the largest quadruped yet discovered in that country, measuring, when full-grown, about five feet from the tip of the nose to the tail, the tail

being about three feet; and weighing about one hundred and fifty pounds. The general size of the kangaroo is equal to that of a sheep. The upper parts of the animal are small, the lower much larger, yet such is the elegance of gradation in this respect, that the kangaroo may justly be considered as one of the most picturesque of quadrupeds. The head bears some resemblance to that of a deer, and the countenance is mild and placid. From the breast downward the body gradually enlarges; the tail is long and taper, thick at the base, and narrowing to a point.

The fore-legs of the largest kangaroos are about nineteen inches in length; the hinder ones being three feet six or seven inches. From this great disproportion it was long believed that the former were not used in locomotion, but merely for digging its burrows in the ground, and in raising food to its mouth. Though it has been seen running on all four

feet, yet its principal progressive motion is by leaps, in which it has been known to clear twenty feet at a time, and which are so rapidly repeated as to enable the animal almost to outstrip the fleetest greyhound: besides which it will frequently bound over obstacles nine feet or more in height with the greatest ease. Its general colour is an elegant pale brown, inclining to white on the belly.

One of the most remarkable peculiarities of this animal is the extraordinary faculty which it possesses of separating at pleasure to a considerable distance the two long fore-teeth in the lower jaw. According to La Billardière, its eye is furnished with a nictitating membrane, situated at the interior angle, and capable of being extended at pleasure over the ball.

In its natural state the kangaroo is extremely timid. It feeds entirely on vegetable substances, chiefly on grass, and drinks

by lapping. It is gregarious, feeding in herds of thirty or forty; in which case it is generally observed that one is stationed at a distance from the rest, apparently as a sentinel. It sometimes uses its tail as a weapon of defence, giving such severe blows with it to dogs as to oblige them to desist from the pursuit. It will also kick with its hind feet with great violence, and during this action it supports itself on the base of its tail.

The kangaroo is one of those remarkable species of quadrupeds that are furnished with a pouch in which their young are fostered; and the agility which the females display when thus encumbered with the burden of their offspring is truly astonishing.

The flesh of the kangaroo is commonly eaten by our colonists in New South Wales: it is said to be rather coarse, but well flavoured and nutritious.

THE SLOTH.

Of the animals called sloths, from the extreme slowness and sluggishness of their movements, there are three species, distinguished by the number of their toes, having respectively two, three, and five toes. The two former are natives of the hotter parts of South America; the latter, called the ursine sloth, from its shaggy coat, is found in India, chiefly in the island of Ceylon. They are harmless inoffensive creatures, living wholly on vegetable food. It is the three-toed species which we have to describe.

In its general appearance it is extremely uncouth; the body is thick, the feet very small, but armed with three very long strong claws, of a curved form and sharp-pointed. The head is small, the face short, naked, and

of a blackish colour; the eyes are small, black, and round; the ears also are small, and lie close to the head. The hair on the top of the head projects over and gives to the animal a very peculiar and grotesque physiognomy. Its general colour is a greyish brown; and the hair, which thickly covers the body, especially the back and thighs, is of moderate length and extremely coarse.

The most particular account that we can find of the habits of the sloth is that given by Kircher, the Jesuit. Its figure, he says, is extraordinary: it is about the size of a cat, has a very ugly countenance, and long claws like fingers. It sweeps the ground with its belly, and moves so slowly that it would scarcely go the length of a bowshot in a fortnight, though constantly in motion. It lives generally on the tops of trees, and takes two days in crawling up one, and as many in getting down. Nature has doubly guarded it

against its enemies; in the first place by giving it such strength in its feet as to hold whatever it seizes so fast, that it can never extricate itself but must die of hunger; and secondly, in having given it such an affecting countenance that, when it looks at any one who might be tempted to injure it, he can scarcely help being moved by compassion: it sheds tears also, and persuades you that a creature so abject and defenceless ought not to be tormented.

By way of experiment one of these animals was brought to the Jesuits' College at Carthagena. A long pole being put under his feet, he grasped it firmly, and would not loose it again. The sloth was therefore raised upon this pole, which was placed between two beams, where the animal remained suspended without food for forty days, the eyes being always fixed on those who looked at him, who were so affected that they could not forbear pitying

his dejected state. When he was at length taken down, a dog was let loose on him; he presently seized this assailant in his claws, and held him there till he died of hunger.

In this account the slowness of the motions of the sloth is considerably exaggerated; as we learn from later writers that he will move at the rate of fifty or sixty paces in a day, and one that was on board ship climbed to the mast-head in about an hour.

In climbing, the sloth first carelessly stretches out one of his fore paws, and fixes his claws in the bark of the tree as high as he can reach; he then heavily drags up his body, and gradually fixes his other paws, raising himself apparently with the utmost difficulty. When in the tree, he continues there till he has stripped it of leaves and bark, upon which he feeds; and then, to save himself the trouble of a tedious and laborious descent, he drops, it is said, to the ground, being preserved by his

thick and hairy hide from injury by the fall. There he lies till the calls of hunger again impel him to the arduous task of climbing another tree, when he proceeds in the same manner.

Linneus says that the cry of the sloth is horrible and its tears piteous. It is most active during the night, at which time it utters its plaintive cry, ascending and descending in perfect tune through the hexachord, or six successive musical intervals. When the Spaniards, on their first arrival in America, heard this unusual noise, they imagined that they were near some nation which was acquainted with our music.

THE ARMADILLO.

The animals of this tribe are thus named from the curious kind of armour by which their bodies are protected. This armour is

composed partly of large irregular pieces, of a strong sort of shell, like that of the tortoise, covering the shoulders and back, and partly of regular bands lying between these, folding over one another, and connected by membranes, like the parts of a lobster's tail, so as to accommodate themselves to all the motions of the animal. The number of these bands varies in the different species of armadilloes, of which there are six, chiefly distinguished by the number of shelly bands that envelop the body, and all closely resembling each other in their habits and way of life. The twelve-banded armadillo is the largest of the race, being almost three feet in length; the six-banded, common in Brazil and Guiana, and represented in the engraving, is about the size of a young pig; and the eighteen-banded about fifteen inches long.

The armadillos are very harmless animals, and live in subterraneous retreats, which they

burrow for themselves with their large, strong claws; wandering about chiefly by night, in quest of roots, grain, and insects, drinking much, and often growing very fat, in which state the smaller species are considered a great delicacy. They are hunted with dogs trained for the purpose. When attacked they will sometimes coil themselves up into a ball, when they are invulnerable; or, if not too suddenly surprised, they will run to their hole or attempt to make a new one, which they do with great expedition, by means of their claws. With these they adhere so firmly to the ground, that if they should be caught by the tail while making their way into the earth, the resistance is so great that they will sometimes leave their tails in the hands of their pursuers: to prevent this, the hunter, by tickling the animal with a stick, causes it to give up its hold and to suffer itself to be taken alive. We are assured that, if no other means of escape are

left, it will roll itself up within its shelly covering, by drawing in the head and legs, and bringing the tail round them as a band to connect them more forcibly together; and in this situation it will roll itself over the edge of a precipice and generally fall to the bottom unhurt.

THE GREAT ANT-EATER.

The animals of this genus live chiefly, as their name implies, on ants and similar insects, for which purpose they are furnished with a remarkable tongue, of a round worm-like form, covered with a glutinous saliva, and frequently two feet in length, which lies folded double within the mouth, that is but just large enough to contain it. This tongue compensates for the want of teeth. The head of the ant-eater is very long and slender; the body clothed with long shaggy hair; the tail, of

London Pub.d as the Act directs by J. Harris. St Paul's Church Yard, 1823

enormous size, is also covered with long, black hair, somewhat resembling that of a horse; and, in a shower of rain, or when the animal sleeps, he covers himself with it, in the manner of a squirrel, but at other times he trails it along the ground. The great ant-eater is a native of Brazil and Guiana, and sometimes measures eight or nine feet from the snout to the tip of the tail.

The method by which this animal procures the ants, which constitute his principal food, is this:—He thrusts his long tongue into a nest of those insects, and when a sufficient number of them adheres to it, he withdraws his tongue and swallows his prey. He also climbs trees in quest of wood-lice and wild honey; but, should he be disappointed, he can fast for a considerable time without inconvenience. His motions in general are very slow. He swims over large rivers with ease, and then his tail is thrown over his back.

It is said that this species of ant-eater may be tamed, and that in a domestic state he will pick up crumbs of bread and small pieces of flesh.

THE SEAL.

This is an amphibious animal, forming one of the last steps in the gradation between quadrupeds and fish; and, though generally classed by naturalists among the former, apparently partaking in a greater degree of the nature and habits of the latter. It is found, with some variation of species, in almost every quarter of the globe, but, chiefly abounds in the northern seas of Europe, Asia, and America, and in the unfrequented regions towards the South Pole. According to Pennant, seals are even found in some fresh-water lakes, especially that of Baikal.

The usual length of the common seal is five or six feet. It has a large round head, with several long bristles on each side of the mouth, large eyes, no external ears, and a forked tongue. The neck is short, and the body tapers from the shoulder to the tail, which is also very short. The legs are extremely short, the hinder being placed so far back as to be of little use, except in swimming: and all the feet are webbed. The toes, of which there are five on each foot, are armed with strong sharp claws, that enable it to climb the rocks among which it dwells. The seal is covered with short, smooth hair, varying in colour, being sometimes gray, sometimes brown or blackish, and occasionally spotted with white and yellow.

Seals select for their habitations caverns in the rocks, out of reach of the tide. They are excellent swimmers; they will dive like a shot, and rise again in a trice at the distance

of fifty yards, and are very bold when in the sea. In summer they leave the water to bask or sleep in the sun, on the top of large stones or fragments of roek. When annoyed, they hasten towards the sea, flinging dirt and stones behind them as they scramble along, at the same time expressing their fears by piteous moans; but if they happen to be overtaken they will make a vigorous defenee with their claws and teeth till they are killed. They are extremely watehful, and never sleep long without moving, seldom longer than a minute; alternately raising their heads, and, if they see or hear nothing more than ordinary, laying them down again. Nature seems to have gifted them with this watehfulness, because, being destitute of external ears, they cannot hear very quiek, nor from any great distanee. They are taken for the sake of their skins, and for the oil yielded by their fat.

The seal is said to delight in thunder-

storms, and at such times will sit upon the rocks and contemplate with seeming delight the convulsion of the elements; widely differing in this respect from the terrestrial quadrupeds, which manifest terror on such occasions.

The voice of a full-grown seal is hoarse, and not unlike the barking of a dog; that of the young has some resemblance to the mewing of a kitten. When they are about a fortnight old, the mother takes them to the sea, and instructs them to swim and to seek their food; and when they are fatigued, she will, it is said, carry them on her back. She sits upright on her hind legs while she suckles them; and in this attitude of the seal have, no doubt, originated the fabulous stories related of mermaids.

The seal supplies the Greenlanders and the Esquimaux with their principal, most palatable, and substantial food. The fat fur-

nishes them with oil for their lamps and fires. The skin serves for clothing, bedding, and tent-covers, and is employed in making their kayaks or boats; and they find the sinews better for sewing than thread or silk. Of the fine skin of the entrails they make their windows, curtains for their tents, and shirts; and part of the bladders they use in fishing, as buoys or floats for their harpoons. Of the bones they formerly made all the implements which are now supplied to them of iron. The seal-fishery is, in fact, the only labour to which these rude people can devote themselves for a subsistence; to this labour therefore they are trained from childhood, and to acquire dexterity and skill in it is their highest ambition.

When taken young, the seal may be domesticated. It will follow its master like a dog, and come to him when called by its name. An individual which had been taken at a little

distance from the sea and thus tamed, was kept in a vessel full of salt and water, which it would leave for the purpose of crawling about the house, and even sometimes approaching the fire. Though taken out to sea every day and thrown in from a boat, it would invariably swim after its master, and allow itself to be retaken without making any attempt to escape. In this way it lived for some time, and died in consequence of ill usage.

THE BAT.

As the seal appears to form the connecting link between the quadrupeds dwelling on the earth and the inhabitants of the deep, so the bat seems to unite them with the tribes that wing the air. In general figure the bat resembles the mouse; but it is furnished with wings, which the animal can stretch when it

chooses to fly, and fold up into a small space when it is at rest.

The bat's wings are formed of delicate membranes, like thin leather, stretched upon the bones, which correspond with the fore-leg in quadrupeds. So far they resemble those of birds, but they differ in the materials of which they are composed, and in the similitude of the bones to those of the human hand. They have, what is peculiar to themselves, a hook-like process attached to the bone of the wing, by which they lay hold and support themselves upon the cornices of buildings, and so far employ their wings as hands. These wings, when extended, are of great length. In the larger species, found in some parts of India, Africa, and South America, celebrated under the name of vampyre, they often measure five feet; and Sir Hans Sloane was in possession of a specimen, brought from Sumatra, the wings of which measured seven feet.

As, however, the bat itself is not rendered buoyant by any of the means employed in the internal structure of birds, and as its wings are themselves membranes of some strength, great extent of surface is required in them. They are not fitted for long flight, and must be considered as a remarkable deviation from the structure of the bird on one part, and from that of the quadruped on the other.

The numerous species of bats are natives of very different regions. Three of them are found in Britain, several in the warmer countries of Asia and Africa, one in the West Indies, and a few in America. The smaller species, found in temperate climates, live chiefly on insects, which they catch in their flight, and pass the winter in a torpid state without food. Those of warm climates are usually very large, and attack birds and even the smaller quadrupeds. The bats are divided into two classes, the tailed and the tailless.

The large-eared bat belongs to the elass without tails. It is one of the most eommon species of Britain, and may be seen flying through the air in thc summer evenings, in quest of inseets. It is about two inches in length, and seven aeross the extcnded wings. The ears are half as long as the body, very thin and almost transparent, and within eaeh there is a membrane, whieh is supposed to serve as a valve to defend the organ of hearing in the torpid state in whieh the animal remains during winter. On the approaeh of cold weather, they retire to their hiding-plaees in old buildings, walls, or caverns, where they remain generally in great numbers, suspended by the hind legs, and wrapped in their wings, till the genial warmth of summer again ealls them abroad.

From expcriments made by Spallanzani on three speeies of bats, it was eonjectured that these animals must possess some hidden sense,

by which, when deprived of sight, they are enabled to avoid obstacles as readily as when they possessed the power of vision. From some observations made by Sir Anthony Carlisle on this subject, however, it appears probable that it is the sense of hearing, which in the bats is uncommonly delicate, that enables them, when blinded, to avoid the objects that would impede their flight.

The large-eared bat is capable of being domesticated to a certain degree. Mr. White, in his "Natural History of Selborne," tells us that he was once much amused with a tame bat. "It would take flies from a person's hand. If you gave it any thing to eat, it brought its wings round before the mouth; hovering and hiding its head in the manner of birds of prey when they feed. The adroitness with which it sheared off the wings of flies, which were always rejected, was worthy of observation. Insects seemed to be most acceptable, though

it did not refuse raw flesh when offered; so that the notion that bats go down chimneys and gnaw people's bacon seems no improbable story. I saw it several times confute the vulgar opinion that bats, when on a flat surface, cannot get on the wing again, by rising with great ease from the floor. It ran with more dispatch than I was aware of, but in a most ridiculous and grotesque manner."

END OF THE SECOND PART.

LONDON. PRINTED BY SAMUEL BENTLEY, DORSET STREET.